The Dissertation Committee for Kristen Gay Kimbell certifies that this is the approved version of the following dissertation:

Understanding Long-Term-Care Planning Behavior of Baby-Boom Aged Adults: Identifying the Influence of Location of Responsibility and Other Factors

Committee

_____

Namkee Choi, Supervisor

_____

Jacqueline Angel

_____

Laura Lein

_____

Marc Musick

_____

Calvin Streeter

Understanding Long-Term-Care Planning Behavior of Baby-Boom Aged Adults:

Identifying the Influence of Location of Responsibility and Other Factors

by

Kristen Gay Kimbell, B.S., M.S.S.W., M.P.Aff.

Dissertation

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Dedication

This dissertation is dedicated to older adults who suffer in isolation from limited or inadequate services or resources and for whom the current safety-net LTC system has failed.

Acknowledgements

I know it sounds cliché to say it, but I have stood on the shoulders of many people. I have been enveloped by many wonderful, generous, and patient folks over the course of my academic endeavors. I feel fully equipped and excited to begin the next chapter of my professional career.

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Understanding Long-Term-Care Planning Behavior of Baby-Boom Aged Adults: Identifying the Influence of Location of Responsibility and Other Factors

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Our current LTC system is burdensome to state and federal governments, to family members, and to individuals' pocket books; it is not expected to endure the weight of the baby boom generation. Total national spending for long-term care in 2005 was $207 billion and is only expected to rise. This study examined the LTC planning behavior of individuals of baby boom birth years (1946 to 1964), focusing on the influence of individuals' views about whose responsibility is the provision of LTC on planning behavior. Specifically, the study has three aims: to 1) to describe the LTC planning behavior among baby boom aged adults; 2) examine baby-boom aged adults' views on whose responsibility is the planning/provision/cost of LTC (location of responsibility); and 3) examine the influence of potential predictors of individuals' LTC planning with specific focus on the influence of location of responsibility (LOR). Data was collected between May and August of 2009 using a mixed modes self-administered 80-item original survey via the internet and regular mail (study sample = 1,066; 1,166 responding; response rate 58%). The study population consists of benefit-eligible Black,

Hispanic/Latino, and Non-Hispanic White faculty/staff born in or between the years of 1946 and 1964 from a large southwestern university. This study found overall low levels of LTC planning; however, with regard to LTCI purchase, the participation rate is good relative to the national coverage rate. The study informs us that baby-boom aged individuals as a whole believe themselves (individuals) to have a high level of responsibility for their own potential LTC needs, but also that responsibility lies with the government, employers, and adult children as well. Consistent with hypotheses, LTC awareness/avoidance predicted a higher level of extent of planning (gathering, deciding, and concretizing); worthwhileness and self-efficacy predicted LTCI purchase; and awareness, subjective norm, worthwhileness, and self-efficacy predicted LTC specific savings. Additionally, individual responsibility (negatively), female (positively), income (positively), experience (self and other; positively), LTC knowledge (positively), and Hispanic (negatively) all predicted extent of planning. Employer responsibility (positively), faculty (negatively), marital status (married; negatively), Black (positively), and medical diagnoses all predicted LTCI purchase. And, employer responsibility (positively), government responsibility (negatively), income (positively), and experience-other (positively) all predicted LTC-specific savings. Implications for practitioners, employers, program planners, and policy-makers are presented.

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I. INTRODUCTION

I.1. Study Background and Significance

I.1.1. The Aging Society.

Individuals aged 65 years or older represented roughly 13 percent of all Americans in 2008, or 38.9 million individuals (U.S. Census Bureau, 2010). This number is expected to climb to 88.5 million by 2050, with one in five Americans aged 65 or older. With increased age often comes increased need for assistance or care. At the same time the number of elderly is rising, life expectancy is lengthening. Fortunately, individuals are living healthier lives on average (U.S. Census Bureau, 2005). Yet, most individuals 65 and over suffer from at least one chronic condition, and many will require some form of long-term care (LTC). Evidence suggests that Americans, as individuals and as a nation, may not be adequately prepared to meet this need.

I.1.2. The LTC System

The transition of the baby-boom generation—those born between 1946 and 1964—into retirement years is expected to bring with it real challenges for our nation's LTC system (Walker, et al, 1998). Total national spending for LTC in 2004 was $194 billion (GULTCFP, 2007). Medicaid is the public program intended to ensure LTC assistance for low-income individuals, yet even these individuals must meet income, asset, and functional eligibility. Some argue that Medicaid has also become a primary provider of LTC for many middle-income persons who "spend-down" their own

resources to become eligible (GULTCFP, 2005). In 2005, Medicaid paid for 46 percent, or $59 billion, of all nursing home care and 55 percent, or $42.1 billion, of all home care services (GULTCFP, 2007). Individuals paid out-of-pocket for 25 percent and 7 percent, respectively, of these services. Some suggest that knowing that a payer-of-last-resort exists (Medicaid) presents a perverse incentive for individuals to not otherwise plan for their own future care needs (Minnesota Department of Human Services, 2005). Federal Medicaid spending is expected to double in the next ten years (GAO, 2007). This growing reliance on Medicaid, coupled with the growing number of older Americans, is causing much concern for policy makers.

I.1.3. The Need for Planning

The cost associated with LTC makes services beyond reach for many. The median household income for persons over 65 in 2008 was $29,744 (U.S. Census, 2010). High cost of private pay services, very limited covered services under Medicare, and restrictive access to Medicaid LTC services begs the questions: How will we as a nation face the demands for LTC of a rapidly expanding older adult population? How will we modify our existing public programs to meet the needs of growing numbers and rising costs? How will we encourage more Americans to plan for their potential future care needs? Rising health care costs, longer life expectancies, shrinking public services, and changing family composition (higher divorce rates and fewer children) make individual planning for LTC a necessity.

For the purpose of this study, the following definition for long-term care was used: care provided to an adult for at least three months, including help with everyday tasks like bathing, dressing, cooking or taking medications, or help with nursing care such as checking blood pressure. LTC may be provided in a nursing home, assisted-living facility, the community, or in a person's home by aides or family/friends. Long-term care *planning behaviors* include multiple levels of planning such as thinking about preferences, researching options, making decisions, and taking action (e.g., buying LTC insurance, discussing preferences and decisions/plans with family, ensuring supplemental health coverage into the future, and actively saving for LTC needs). While the best mechanisms for planning may remain in some debate, the notion that *planning in advance of a potential stressful life event is a rational behavior* is not much in question. Planning may have the added benefit of enhancing quality of life in later retirement years, as it has been suggested that preparation for future care needs may slow health decline or enable effective coping with aging (Pinquart & Sorensen, 2002; Groger, 1994).

Exploring one's potential LTC needs requires one to take a close look at one's own current and expected health outlook, one's habits, family history, and of course life expectancy. One has to "size up" the related services for older adults available (or not) in one's community, make decisions about where one will want to/be able to reside when one has needs, assess the potential for family involvement with needs, and assess one's financial projections (whether or not asset protection is desirable/viable; how

much income is needed in retirement; how much more needed in the event of LTC needs). Making one's preferences and decisions known to loved ones is a key part of planning as well. All of this requires some ability to gather information and a framework for decision-making. Much of this process is steeped in emotion as well. As Americans, we are used to the do-it-yourself mentality. We do not easily envision ourselves as needing help. Thus, the planning process, which can force us to view ourselves in need of care and to discuss these potential needs with family members, can be quite emotionally cumbersome and off-putting. However, these planning steps – gathering information about resources/help, decision-making about preferences/options, conversations with loved ones, completion of advanced directives – are vital to the planning process and to averting time-of-crisis decision-making/arrangements. For the most part, these important steps do not require monetary resources to perform, and thus, can be done by most individuals.

With the added step of how to plan financially for one's own potential LTC needs, there is extra stress and even more complexity. The added burden of desiring to "spend one's money wisely" coupled with the layers of information and decision-making required to commit to the purchase of LTCI, for instance, keeps many from even beginning the process. However, many Americans are driven to financially plan by the desire to protect their assets for their own retirement enjoyment, for their spouse, or as a bequest to their children. Still others are motivated by the desire to not be a burden to their family or simply to retain as much control and flexibility as possible should they

require LTC. The decision to save specifically for one's own potential LTC needs is relatively straight-forward; however, one does have to weigh the cost/benefits to determine if foregoing the money in the near-term is advisable. The prospect of deciding whether or not to purchase LTCI is a somewhat more daunting decision. LTCI insurance is designed for individuals who desire a "hedge" against the risks of having to pay for long-term care out of pocket. For many it is also a mechanism for enabling more control and flexibility with care and lessening the risk of becoming a burden to children/family. There are many difficult questions surrounding this consideration of LTCI purchase: how at risk am I of needing this form of assistance, how much flexibility in how the money is spent does the policy have and how much choice/flexibility do I need, for what income/resource levels does it make sense, will the premium rates increase, what about inflation, will it last long enough, what about when it runs out? Long-term care insurance is not the answer for everyone and the debate is ongoing about for whom LTCI is the answer. It is a lot to ask of consumers to determine whether or not LTCI purchase is a "rational" choice for him/her, and some policy analysts still debate said rationality. According to Milliman (2007), more than 45 % of individuals who reach age 65 years will need LTC services at some point, many of them requiring care for one year or longer. Only 9 percent of 65-year-olds can expect a long nursing-home stay and 18 percent more will need a long-term assisted living stay. By 2030, however, for those who do need a nursing home stay, the cost is expected to be $149,000 a year (Metlife, 2009). Some argue that investing the same money that would be spent on

premiums would be the better investment risk, with greater flexibility ($1,000 a year at age 58, would yield around $65,000 by age 80; Martin, 2008). Nonetheless, LTCI is continuing to be pushed at the national and state levels as at least a part of the LTC Solution. The political conundrum regarding LTCI is no less complex. Some health economists argue that the LTCI market suffers due to Medicaid "crowd out," i.e., why should individuals buy LTCI if they have the safety net of Medicaid. Others offer that LTCI presents a potential moral dilemma with family members' potential inheritance protected without having to reciprocate by providing care for their loved one (Brown & Finkelstein, 2006;). Still others (Costa-Font, 2010) suggest that "familism" crowds out LTCI purchase with individuals believing family should/will provide care for them and thus not purchasing.

With that said, it is fair to assert that this research to some degree may contain a LTCI bias, implying that the purchase of LTCI is among the rational choices one can make in order to adequately plan for one's own potential LTC needs. In most cases individuals choosing to purchase LTCI are doing so to preserve their estate or otherwise protect assets for a spouse.

I.2. Study Purpose

The principal goal of this study is to contribute to the overall body of knowledge about factors influencing LTC planning behavior and how, if at all, it is influenced by individuals' views on whose responsibility is planning/provision/cost of LTC. To reach this goal, the primary research question guiding the proposed study asks: What factors

influence the LTC planning behavior of baby-boom aged adults? In order to address this goal, the following three *specific aims* were derived.

Specific Aim 1: To describe the LTC planning behavior (extent of LTC planning -- gathering information, making decisions, concretizing; LTC savings, and LTC insurance purchase) among baby boom aged adults.

Specific Aim 2: To examine baby-boom aged adults' views on whose responsibility is the planning/provision/cost of LTC (location of responsibility).

Specific Aim 3: To examine the influence of potential predictors of individuals' LTC planning behavior (in terms of their extent of planning -- gathering information, making decisions, and concretizing LTC plans; savings specifically for potential LTC needs; and purchase of LTC insurance), with specific focus on the influence of LOR.

Study results can provide useful insight for policy-makers, program developers, and other professionals seeking solutions to the LTC dilemma. In order to design more viable policy, policy-makers must be aware of the public's views, and thus their will, regarding the individual versus government role in the provision of LTC. Program developers and other educators must be aware of the influence of individuals' views on planning, as well as the potential influence of prior experience with LTC, in order to develop appropriate diagnostic and educational programs/materials and to better target educational interventions regarding the importance of shared responsibility and individual planning to individuals and families.

Ultimately, this study aims to provide information which will lead to a better understanding of individuals' views regarding LTC and their current planning behavior. This study explored a multitude of factors and their influence on various levels of LTC planning. It is one of only a handful of studies to look specifically at the planning behavior of baby-boom aged adults, and it is the only known study to examine the relationship between various levels of LTC planning and LOR. This exploratory study also provides comparative information across job categories regarding views on responsibility for planning and actual planning behavior of employed baby boom aged adults. This comparison allows us to see how these groups on average are alike or dissimilar with regard to planning behavior. Additionally, this study provided the opportunity to test both the methodology as well as the measurement instrument. The measurement instrument includes six scales from the PFCN and thus also provided further validation of these scales.

Chapter two of this report details the theoretical background and framework for the study, and factors selected for the study are identified. In chapter three, the variables of the study are further discussed, the measures of each factor provided, and the research questions and hypotheses for each aim delineated. Chapter four presents the findings of the data analysis. Lastly, chapter five presents a discussion of these findings along with limitations and implications of the study as well as future research recommendations.

II. CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

II.1. Theoretical Background

This study is guided by two primary theories: 1) the theory of proactive coping and 2) the theory of planned behavior. Each is described in this section as well as the Long-Term Care Planning Model which was developed for this study and incorporates key elements of both theories.

II.1.1. The Theory of Proactive Coping

The *theory of proactive coping* offers that individuals will engage in efforts to prevent or modify the negative effects of *potentially* stressful future events or situations (Aspinwall & Taylor, 1997). Key to successful engagement in proactive coping are two early stages in the five stage process: recognition (of potential stressors) and initial appraisal (of potential stressor) indicating that the individual is aware of the potential negative effect of the future event or situation (see Appendix A for all stages of the theory). Controllability (in the appraisal stage) has been identified as a moderator of whether or not future-oriented thoughts translate into adaptive efforts; and income and education have been associated with having a future orientation. Thus, individuals, faced with the challenge of moving into later adulthood and the potential losses that might accompany that stage of their life, may engage in LTC planning. *Recognition* of potential loss and *appraisal* of individual risk, or need for planning, are necessary first stages in order to follow through with planning.

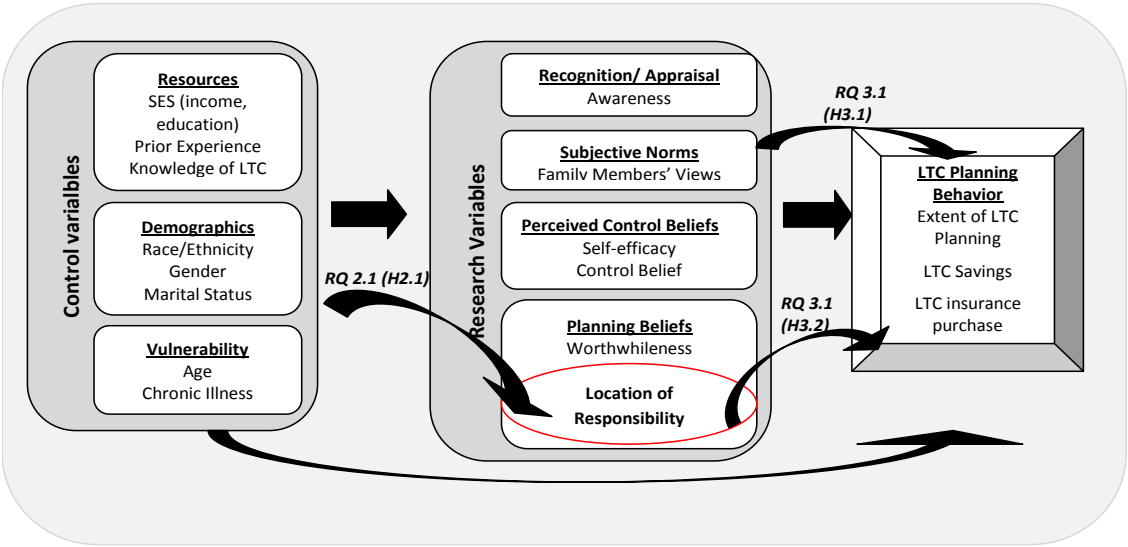
II.1.2. The Theory of Planned Behavior

The *theory of planned behavior* (TPB; Ajzen, 1991), a widely used cognitive self-regulatory framework in the study of human action, describes intentions as necessary antecedents to action (behavior). Knowledge about attitudes (beliefs about attributes or consequences of the behavior), about subjective norms (beliefs about others' expectations or attitudes toward the behavior), and about perceived behavioral control (beliefs about other factors—internal and external—that may affect performance of the behavior), allow us to predict intentions (Ajzen, 2002). See Appendix B for a model of the theory. The accuracy of the individual's perception of control determines the effectiveness of perceived behavioral control serving as a proxy for actual control. This actual control over behavior is determined by opportunities and resources, such as, money and skills. Thus, if an individual is in favor of performing a behavior, feels social pressure to do so, and feels in control of the behavior, s/he will be more likely to *intend* to perform the behavior (Francis, et al, 2004). Assuming the individual has the requisite resources, s/he should be successful in *performing* the behavior if s/he intends to do so (Ajzen, 2002). The likelihood an individual will intend to perform a behavior, and thus the behavior, can be influenced by changing the three primary predictors (Francis, et al, 2004).

II.1.3. The Long-Term Care Planning Model

Long-term care planning involves a set of behaviors engaged in *in anticipation of potential future stressors accompanying later adulthood*. Applying the concepts from TPB and elements of the theory of proactive coping, individuals will be more likely to plan if they have favorable attitudes about planning, if they perceive planning to be important to people who are important to them (in this case family members), and if they believe themselves to be in control of their planning. Resources, such as SES, knowledge of LTC options, and prior LTC experience will also influence the intended planning behavior as "actual control" factors. Combining elements from the theories of proactive coping and planned behavior, I have established a hybrid model, the Long-term Care Planning Model (LTCP model), for use as a conceptual guide for identifying influences on these behaviors (see Figure 1 below). In the LTCP model, *attitudes* toward

Figure 1. Long-Term Care Planning Model



LTC planning include: 1) beliefs (awareness) about potential need for LTC (Pinquart, Sorensen, & Davey, 2003), i.e., recognition and appraisal of need to prepare for aging (Bode, et al, 2006); 2) beliefs about worthwhileness of planning (Sorenesen & Pinquart, 2001); 3) and beliefs about whose responsibility is LTC (NASI, 2005). For the purposes of this model, *subjective norms* specifically focus on perceptions of important family members' views about the importance of planning and individual responsibility. *Perceived control* over LTC planning behavior includes both perceived self-efficacy and control belief components, reflecting both individuals' confidence and beliefs about their actual ability to perform planning behaviors (Ajzen, 2002). A number of factors were controlled for in the model. First, *resources.* In the TPB model, *actual control* over behavior was influenced by such factors as money, skills or knowledge. In this model, such factors (SES – income and education; knowledge of LTC options; prior LTC experience) were controlled for, as the LTC planning literature has indicated potential influence on planning (Lusardi, 2003; Sorensen & Pinquart, 2000a; Malory, et al, 1996; Pinquart & Sorensen, 2002; Pinquart, Sorensen, & Davey, 2003). Similarly, vulnerability (chronic medical conditions and age) and several demographics (race/ethnicity, gender, and marital status) have demonstrated possible influence on planning (Lusardi, 2003; Pinquart & Sorensen, 2002; Sorensen & Pinquart, 2000a, 2000b, 2001; NASI, 2005), and were thus also included in the model as control variables.

II.2 Extant Research

The literature review presented in this section describes gaps in the current research as well as findings from related previous research in the areas of general retirement planning and of long-term care planning specifically. Lastly, the importance of the present study is highlighted.

II.2.1. Gaps in Research:

Little is known about the extent to which individuals plan for future care needs and what influences planning/non-planning. There is an overall dearth of research in the specific area of *long-term care planning*. The research that has been done in this area is predominantly exploratory, with small numbers, with qualitative methods (Bromley & Bliesner, 1997; Carrese, Mulaney, Faden, & Finucane, 2002; Delgadillo, 2001; Delgadillo, Sorensen, & Coster, 2004; Furstenberg, 2002; Groger, 1994; Kulys & Tobin, 1980; Pinquart & Sorensen, 2002; Sorensen & Pinquart, 2000c), and/or with already retired adults (Kulys & Tobin, 1980; Furstenberg, 2002; Groger, 1994; Sorensen & Pinquart, 2000c; Sorensen, S. & Pinquart, M., 2001; Sorensen, S., & Pinquart, M., 2000a; Pinquart & Sorensen, 2002). Most have used only one or two, yet inconsistent, indicators of planning behavior (Kulys & Tobin, 1980; NASI, 2005; Pienta, 2002; Reitzes & Mutran, 2004; Sorensen & Zarit, 1996). Research with larger samples, using quantitative techniques, tends to focus on general "retirement savings," to use limited measures, and/or simply to rely on subject self-report (yes/no) of "long-term care planning" (Lusardi, 2003; NASI, 2005).

II.2.2. Current Findings:

General retirement planning. Literature in the *general retirement planning* area tells us that many U.S. households arrive close to retirement with little or no wealth accumulation (Lusardi, 2003; Employee Benefit Research Institute, 2006). Retirement planning research suggests many know little about their existing benefits (e.g., Social Security, pensions) or about their retirement needs (Eckerdt & Hackney, 2002; EBRI, 2006). Not surprisingly, those who are saving for their retirement tend to have higher levels of education and to be married (Lusardi, 2003). Conversely, having children, having had financial difficulty or a health problem (Lusardi, 2003), and being female are negatively associated with wealth accumulation (U.S. Census, 2005).

Long-Term Care Concerns. From the LTC-specific planning research that does exist, we have learned that a vast majority of baby-boomers and older adults age 65 years and older are *concerned about* how to pay for LTC (NASI, 2005); and many are also concerned that individuals have to become impoverished before the LTC "system" helps them (ibid). We know that individuals desire to live independently and to exercise control over their later lives (Gibson, 2006); yet, few Americans have realistic information about LTC options, funding, and/or their own potential LTC needs (Barrett, 2006; NASI, 2005). Additionally, many individuals erroneously believe they have LTC coverage (NASI, 2005), and over half report erroneous information/uncertainty regarding Medicare and/or Medicaid coverage of LTC.

LTC Planning Prevalence. We are beginning to have some indication about the prevalence of LTC planning and about factors that negatively or positively influence planning from the existing research. Despite the expressed concern over costs and desire to control future care, recent literature suggests that *very few* individuals appear to be planning *specifically for* future care needs (Kaiser Family Foundation, 2006; NASI, 2005; Pinquart & Sorensen, 2002), financially or otherwise. While some individuals do report having *thought* about future care needs or preferences, very few report actually planning for those potential needs (Sorensen & Pinquart, 2000a; Sorensen & Zarit, 1996). Specifically, for a variety of reasons, only a small percentage (some report as low as 10 %) of elderly own a long-term care insurance policy (Yakoboski, 2002).

Demographic factors. Existing research has suggested that LTC planning may be influenced by a number of concrete or demographic factors: lack of information/resources (negative influence; Malory, et al, 1996; Pinquart & Sorensen, 2002); lower levels of SES (negative influence; GT.); being African-American; being a younger adult-- forties and fifties (negative influence; NASI, 2005); being female (positive influence; Sorensen & Pinquart, 2000a); having gathered information about services (positive influence; Pinquart, Sorensen, & Davey, 2003), and, among some minority groups, language barriers (negative influence; Phipps, et, al, 2003).

Cognitive Factors. Recent research also indicates that LTC planning is influenced by several cognitive factors, such as, lack of decision-making/evaluation framework (negative influence; Malory, et al, 1996); perceived vulnerability, e.g., age and extent

ADL assistance is needed (positive influence; Sorensen & Pinquart, 2000a, 2000b, 2001, Pinquart & Sorensen, 2002); awareness of need (positive influence; Pinquart, Sorensen, & Davey, 2003), and, among some minority groups, reluctance to discuss death (negative influence; Phipps, et, al, 2003). There has been some indication that having family contact (Sorensen & Pinquart, 2000a) and having some prior LTC experience, for example, through a parent, positively influences planning (NASI, 2005).

Responsibility. A recent survey suggests many (70%) individuals aged 40 and older believe the federal government should do more to help with LTC costs, with African-Americans (89%), low-income individuals (79%), women (74%), and older individuals (55 and over; 77%) having especially high percentages in this category. Individuals believing that paying for LTC is a government responsibility *are somewhat less* likely to report having a plan (on a yes/no question; NASI, 2005).

II.2.3. Study Significance

Importance: While we have begun to learn about a few demographic and cognitive factors that may influence planning, there had been no examination of individual's views on whose responsibility is the provision and cost of LTC, and how and/or if such views affect LTC planning. More exploratory, as well as explanatory, research was needed to expand current understanding of LTC planning behavior and what factors and attitudes influence planning or non-planning. Recommendations and deductions from existing research suggested that subsequent research: 1) explore the relationship between LTC planning behavior and individuals' views on whose

responsibility is the provision of LTC; 2) develop a comprehensive conceptual framework that incorporates complexities of planning behavior across multiple levels of planning; 3) utilize larger, more representative sample sizes; and 4) utilize quantitative data analysis methods where possible for broader generalization.

Planning Benefits: The obvious societal benefit of LTC planning is cost-savings for the cash-strapped states and federal government currently carrying the biggest burden for funding LTC. States are eager to see a greater share of the responsibility of planning for and provision of LTC transferred to the individual, and are positioning themselves to offer broad strategies in the future toward this end (NGA, 2004). Families, who provide the lions-share of long-term support and assistance, physically, emotionally, and financially, could also benefit from proactive, purposeful planning for future care needs. Additionally, some research suggests that when individuals plan ahead for potentially stressful events, negative effects of the event or transition may be offset (Aspinwall &Taylor, 1997; Hagstad & Burton, 1986, Groger, 1994). In sum, individual planning is important in order to avoid unnecessarily ending up in a nursing home (Medicaid is institutionally biased), to increase one's choice about care, and to maximize the efficiency of the public dollar.

III. METHODS

III.1. Data and Study Sample

III.1.1. Sample and Sample Inclusion Criteria

The sample for this study was drawn from the faculty and staff of The University of Texas (UT) at Austin who met the following inclusion criteria: 1) born in or between 1946 and 1964; 2) UT benefit-eligible; and 3) African-American, Hispanic/Latino, or White. This age group was selected because these individuals are presently beginning to approach retirement and are expected to present challenges to the current LTC system due to their vast numbers. The UT at Austin determines employees to be *benefit-eligible* if they are employed at 50% or greater. The distinction of benefit-eligible makes them eligible to participate in retirement savings programs, as well as to take advantage of the option to enroll in LTC insurance. As this study aimed to examine whether or not, as a part of LTC planning, individuals purchase LTC insurance and/or save for LTC, only benefit-eligible employees were sampled.

It is acknowledged that due to resource and time constraints this study has taken advantage of a conveniently situated university population. It is not expected that this population is representative of all baby-boom aged adults with benefit access. It is also noted that due to time and resource limitations, the study may not adequately represent responses of non-English speaking/reading individuals as the survey was self-administered and in an English-only format. Additionally, the study is limited to Non-Hispanic Whites, Hispanics/Latinos, and African-American/Blacks due to an inability to

ensure meaningful numbers of sample members from other racial/ethnic groups. Any generalizations from findings are limited to the study population (benefit-eligible UT at Austin faculty and staff who are African American, Hispanic, or non-Hispanic White), and others comparable regarding academic setting, size, benefit access, and human resource department outreach and possibly to other government and corporate populations with similar benefit structures. It is the researcher's goal that some insight into predictors of planning behavior can be gleaned from this sample, and will lead to further research among broader populations.

III.1.2. Sample Size and Sampling Method

The study population total for the 2008-2009 school-year was 10,897, including Non-Hispanic White, Black, and Hispanic/Latino employees of all ages. African-American/Blacks made up only 6% of the study population, Hispanics/Latinos made up 18% of the study population, and non-Hispanic Whites made up 76% of the study population. As of May 2011, there were 5,781 benefit eligible faculty and staff born between 1946 and 1964 (all race/ethnicities). A target study sample of 700-1200 participants was sought by contacting approximately 2,035 eligible faculty and staff from the sampling frame. Of the original sample of 2,035, 1,166 people responded to the survey, for a response rate of 57%. Previous studies (Ingram, 2007; Sharlach, 2006) with university personnel had shown that a response rate in the range of 55% to 60% is attainable. After filtering for missing variables, the study sample size is 1,066. Using a web-based sample size calculator to estimate, with a sample size of 1,066 and a 95%

confidence level, the margin of error is 2.85% (Raosoft, 2008). In a priori power analysis, in order to attain a power level of .80 (using multiple regression with 8 IVs or more) with a .05 significance level a sample size of at least 107 (medium effect size - .15) to 50 (large effect size - .35) in each cell category for a total of 9 cell categories (3 job categories x 3 racial/ethnic groups) was recommended (Cohen, 1992). As seen in detail in chapter 4, the cells ranged in number from 18 (Black Faculty) to 317 (White Admin/Exec/Other Professional). As a result, power at the cell level could have been limited. However, analyses were not conducted at the cell level, but rather at the job category or at the race/ethnicity level but not both.

Stratified disproportionate sampling methods were utilized for this study. The sampling frame was first stratified according to job category (Administrative/Other Professional, Faculty, and Non-Professional) and then by race/ethnicity within each job category. The sample consisted of 22 percent Faculty, 40 percent Administrative/Exec/ Other Professional Staff, and 38 percent Non-Professional Staff.

Table III.1. Sampling Ratio by Job Category and Race/Ethnicity

	African Americans	Hispanic/ Latinos	Whites/Non-Hispanic Whites
Administrative/Other Professional 40% of sample (approx. 800)	**ALL** (174 in 2006)	60 % (+/- 300)	9 % (+/- 310)
Faculty 22% of sample (approx. 440)	**ALL** (89 in 2006)	**ALL** (137 in 2006)	9 % (+/- 187)
Non-Professional Staff 38% of sample (approx. 760)	72 % (+/- 255)	21 % (+/- 250)	11 % (+/- 264)

Note: The Administrative/Other professionals category includes executive/ administrative and managerial and "other professionals" (support services); the Non-professional category includes clerical and secretarial; technical and paraprofessional, skilled crafts, and service/maintenance.

The stratification by job category was intended to achieve a study sample distribution that is reflective of the job category distribution of the study population. Next, the

sampling elements within each job category were stratified by race/ethnicity, and disproportionate sampling ratios were used to draw sample members from each cell representing job category and race/ethnicity cross-section. The stratification and disproportionate sampling by race/ethnicity was intended to achieve a study sample distribution that is inclusive of all three racial/ethnic groups. In 2006, African-American/Blacks made up only 4.2 % (174) of the Administrative/Other Professionals job category. In the Faculty job category, African-Americans made up only 3.8 % (89) and Hispanics made up 5.9 % (137).

In order to compensate for underrepresentation of African-Americans in the administrative/ professional staff and faculty categories and the small number of Hispanics/Latinos in the faculty category, all individuals of the appropriate birth years in these cells were selected into the sample. For the remaining cells, differential sampling ratios, ranging between 9 % and 72 % of the study population for that job category, were applied in order to achieve the sample distribution that is similar to the distribution by job category and race/ethnicity in the population. See Table III.1. above for more details regarding these sampling numbers/ratios.

III.1.3. Subject Identification and Recruitment

The recruitment process involved several steps. The first step was an open records request submitted by the investigator to the University of Texas (UT) Office of the Vice President on April 2, 2009. This request was for the retrieval of a sample of employees' names and email/physical addresses (home address when available)

according to the numbers or percentages shown in Table III.1 above. After the requisite fee was paid by the investigator, the requested file was transferred by the Office of the Vice President to the UT Benefits Office for the data extraction on May 7, 2009.

Upon receipt of the email and physical addresses of the sample by the investigator, a mixed-mode survey method was employed (Dillman, 2007). First, an internet-based survey methodology, using Surveymonkey.com, was utilized. All UT employees have access to a free email account; although, it was anticipated that regular use of email and/or computer access would be more limited among Non-Professional staff. Therefore, the second survey mode, employed to reduce coverage error, was a mail-out survey to all those without available email addresses and to all electronic non-responders (see the following section for more details).

III.1.4. Procedures/ Data Collection

All sample members were sent a personalized and signed "pre-notice" letter on university letterhead, along with a copy of a signed letter from the School of Social Work Dean urging participation, and including a token incentive (a $2 bill). The letter informed sample members of the study and invited them to participate via the world wide web. The letter informed sample members that within 2-3 days they would receive an email with a link to the survey. The letter also included the URL for those without a publicly available email address, but with internet access, and informed sample members that those not responding by email would receive a survey packet in the mail within a few weeks. A multiple contact strategy was employed for the internet-based portion of the

survey (Dillman, 2007). The contacts included: 1) a cover letter email 2-3 days after letters arrived by postal mail, including URL link to the survey; 2) about one week later, a follow-up email again including the link to the survey and stressing the importance of participation; and 3) about one month later, a second follow-up email again with the URL link and again stressing the importance of participation was sent.

For electronic nonresponders and those without an available email address, multiple contacts were also made (Dillman, 2007). Responders were removed from the initial mail-out list (if they had clicked on the appropriate button to submit a "completed survey" email to the investigator). Those not responding to the online survey were included in the physical mail survey mode. Those remaining sample members also received several contacts, which included the following: 1) 1-2 weeks after the last follow-up email, or about six weeks after the initial "pre-notice" letter, remaining sample members were sent the survey packet via U.S. postal service first-class mail; 2) a follow-up thank-you/reminder postcard about a week to ten days after the arrival of the survey packet was sent; and 3) a replacement survey, with another personalized cover letter, indicating others had responded and stressing the usefulness of their response, was sent to individuals not responding to the initial mailed survey within 2 – 3 weeks (Dillman, 2007). The survey packet included: 1) the cover letter; 2) the informed consent form (2 copies); 3) the survey with the demographic sheet; 4) an invitation to complete the survey via the internet (at designated URL) if preferred; 5) a phone contact for the

option of completing survey over the phone and/or to ask questions; 6) and a stamped, pre-addressed return envelope.

Subjects agreeing to participate completed an informed consent form, the survey, and the demographic sheet, either in hard copy form or online via the internet. Online responders were not allowed to advance to the electronic survey until the electronic consent form had been completed; their survey data was submitted online through Surveymonkey.com. Those completing the hard copy survey items returned the completed survey using the enclosed pre-addressed/stamped envelope. Respondents were tracked in an excel spreadsheet as they completed the survey or opted out.

The study underwent review by The UT at Austin Human Subjects Institutional Review Committee in July – August, 2008 and received expedited approval beginning August 8, 2008.

III.2. Measurement of Variables

Measurement data for the study was collected using an 80-item survey compiled for the purposes of this study, as well as a 10-item demographic data sheet, as shown in Appendix C. The survey includes six scales from the Preparation for Future Care Needs (PFCN) instrument (Sorensen & Pinquart, 2001), as well as a number of original items. The PFCN, a 62-item, validated instrument includes 8 scales and two additional 8-item sections not scaled but evaluated item-by-item. See Table III.2. for original alpha levels of the six scales used in

Table III.2. PCFN Scale Alpha Levels

Scale	Alpha	3-mth Stability
Gathering Information	.87	.64
Deciding on Preferences	.76	.62
Concrete Planning	.78	.69
Usefulness of Planning	.87	.63
Becoming Aware	.82	.72
Planning Avoidance	.72	.44

this study survey. A complete listing of items for the included scales is shown in Appendix D.

The study survey as a whole, including original items, was pilot-tested on 7 age-appropriate respondents. These respondents were selected using purposive and judgmental sampling in order to represent the three job categories and to seek expert input. Respondents were asked to complete the survey and provide feedback in person or in writing to the researcher regarding the following: survey understandability, survey language, and survey burden. Feedback yielded no substantive changes.

III.2.1. Dependent Variables.

The dependent variables for the study are *extent of long-term care planning (gathering information, making decisions, concretizing), long-term care specific savings, and long-term care insurance purchase,* which together make up the construct long-term care planning behavior. First, the extent of long-term care planning variable was measured with the Gathered Information, Made Decisions, and Concrete Plans scales from the PFCN. These three scales utilize 5-point Likert scale responses items, ranging from "not

Table III.3 Dependent Variables

Extent of long-term care planning		
Construct	**Item**	**Measurement**
Gathering Information	7 PFCN items regarding G*athering Information*	5-Pt Likert: not at all true to completely true
Making Decisions	6 PFCN items regarding *Making Decisions*	5-point Likert: not at all true to completely true
Concrete Plans	7 PFCN items regarding *Making Plans*	5-point Likert: not at all true to completely true
Long-term care savings		
Saving	Do you (and/or your spouse/partner) currently save specifically with potential long-term care needs in mind?	Yes/No
Long-term care insurance purchase		
LTCI purchase	Have you purchased or are you purchasing long-term care insurance (either an individual policy or through your or spouse's/partner's employer)?	Yes/No

at all true of me" to "completely true of me," with higher scores indicating higher levels of each construct, respectively.

Responses to the scales were analyzed using a combined score from all three scales. The range of the combined score is 20 to 100; again, a higher combined score will indicate a higher extent of long-term care planning. To measure the other two dependent variables, respondents answered one yes/no question for each. First, respondents were asked to indicate whether or not they are presently saving specifically for potential long-term care needs. Next, individuals were asked to indicate whether or not they have purchased or are purchasing a long-term care insurance policy. See Table III.3 above for a list of dependent variables and measurement.

III.2.2. Primary Research Variable.

The study's primary research variable, location of responsibility (*LOR) for long-term care*, assessed the individual's perspectives regarding responsibility for long-term care. Survey questions address the extent to which the respondent perceives LTC to be the responsibility of the individual, adult children, employers, or the government.

Table III.4. Primary Research Variable – Location of Responsibility

Construct	Item	Measurement
Responsibility for planning	The aging of the Baby Boom generation will create an unprecedented need for long-term care services in the U.S. How much responsibility should each of the following entities have in *PLANNING for* such long-term care? (Individuals, Adult Children, Employers, and Government).	5 Pt Likert: a great deal to not at all
Responsibility for providing	How much responsibility should each of the following entities have in *PROVIDING long-term care?* (Individuals, Adult Children, Employers, and Government).	5 Pt Likert: a great deal to not at all
Responsibility for paying	How much responsibility should each of the following entities have in *PAYING for long-term care?* (Individuals, Adult Children, Employers, and Government).	5 Pt Likert: a great deal to not at all

Respondents were asked, on a 5-point scale (ranging from a great deal to not at all), in separate questions, to what extent individuals, adult children, employers, and/or the federal government are responsible for 1) planning for, 2) paying for, and 3) providing for long-term care. Each of these three questions thus has four parts: *a) individuals, b) adult children,* c*) employers, and 4) government*. Scores for each of the four variables (individuals, adult children, employers, government) were totaled to make four composite factors: 1) individual responsibility, 2) adult child responsibility, 3) employer responsibility, and 4) government responsibility. For example, the individual responsibility factor will be a total of the three scores for the items asking about responsibility for planning, for providing, and for paying for LTC. Scores for each composite factor range from three to fifteen, with lower scores indicating greater responsibility for that entity (scores were then reverse coded for analyses). See Table III.4. above for a list of variables and their respective items.

III.2.3. Other Research Variables: Awareness, Worthwhileness, Subjective Norms, and Perceived Control

Four other research variables were examined in the study: 1) awareness; 2) worthwhileness; 3) subjective norms; and 4) perceived control. See Table III.5 below for a list of all "other" research variables and their measurement.

Awareness. The awareness variable assesses the respondent's attitudes or beliefs about their potential need for long-term care using two PFCN scales -- becoming

aware and avoidance of preparation, both on a 5-point scale. The score on the becoming aware scale ranges from 6 to 30, and on the avoidance scale ranges from 3 to 15, with higher scores indicating more awareness and more avoidance, respectively.

Worthwhileness. The worthwhileness variable assesses respondent's beliefs about the usefulness of LTC planning using a PFCN scale -- Usefulness of Planning, with responses on a 5-point scale ranging from disagree completely to agree completely. Scores range from 7 to 35, with higher scores demonstrating lower perceived worthwhileness of planning.

Table III.5. Other Research Variables and Measurement		
Awareness Variables		
Construct	**Item**	**Measurement**
Becoming aware	6 PFCN items regarding become aware	5-Pt Likert: not at all true of me to completely true of me
Planning Avoidance	3 PFCN items regarding planning avoidance	5-Pt Likert: not at all true of me to completely true of me
Worthwhileness Variables		
Usefulness of planning	7 PFCN items regarding usefulness of planning	5-Pt Likert: disagree completely to agree completely.
Subjective Norm Variable		
Family member views	Family members who are important to me think that planning ahead for potential long-term care needs is important.	5-Pt Likert: disagree completely to agree completely.
Perceived Control Variables		
Self-efficacy	If I wanted to I could plan ahead for potential long-term care needs.	5-Pt Likert: disagree completely to agree completely.
Control belief	I believe I have control over whether or not I plan ahead for my (spouses') long-term care needs.	5-Pt Likert: disagree completely to agree completely.

Subjective Norm. Subjective norm is measured with the family members' views variable which assesses the respondent's view of whether or not important family members view planning for LTC needs as important. The respondent was asked whether or not family members who are important to him or her think that planning ahead for

potential long-term care needs is important. One item using 5-point Likert scale responses (disagree completely to agree completely) is used to measure the variable.

Perceived Control. The perceived control variable is constituted by two indicators: self-efficacy and control belief. The self-efficacy indicator assesses the respondent's confidence in his or her ability to perform planning behaviors. The control belief indicator assesses the respondent's belief regarding whether or not performing planning behaviors is within his or her control. The self-efficacy and control belief variables are each measured with one item using 5-point Likert scale responses, ranging from 1 – disagree completely, to 5 – agree completely.

III.2.4. Control Variables: Vulnerability, Resources, and Demographics.

The literature suggested a number of other factors that may affect one's planning behavior. As shown in Figure 1 above, these factors include vulnerability, resources (SES, knowledge of LTC options, and prior LTC experience), and other demographics (race/ethnicity, gender, and marital status; Sorensen & Pinquart, 2000a, 2000b, 2001; Pinquart & Sorensen, 2002; Phipps, et al, 2003; Delgadillo, 2001). This study therefore controlled for these variables. See Table III.6 below for control variables and their measurement.

Vulnerability. Two variables were used to measure vulnerability: chronic conditions and age. Respondents were asked to identify any of eleven chronic conditions for which they have ever been given a diagnosis; affirmative responses were totaled. For age, respondents were asked their age in years.

Resources. For resources, SES was measured using two variables: previous year's total household income and number of years of education completed. To measure knowledge of long-term care options, respondents were asked, on a 5-point scale, to what extent they "feel knowledgeable about long-term care options and services in their community." Prior experience was measured using two yes/no questions regarding whether or not the respondent has past or present experience providing, arranging, or receiving long-term care for self or others. A dichotomous variable was computed to indicate a yes response for either question.

Table III.6. Control Variables

Construct	Item	Measurement
Age	What is your age and date of birth?	_____ years
Chronic Conditions	Has a doctor or other healthcare professional ever told you that you had any of the following conditions: Kidney disease; liver disease; lung problems; heart disease; stroke; diabetes; cancer; arthritis; high blood pressure; emotional/nervous/psychiatric problems; other	Yes/no/dk
Income (SES)	What was your total household income last year?	Less than $29,999; $30,000 to $44,999; $45,000 to $59,999; $60,000 to $74,999; $75,000 to $99,999; $100,000 to $199,999; $200,000 or More.
Education (SES)	What is the number of years of education you completed?	_____ years
Knowledge	I feel knowledgeable about the long-term care options and services available in my community. For example, nursing home, home health agencies, adult day-care, Meals-on-Wheels.	5-Pt Likert: disagree completely to agree completely.
Prior Experience	Do you have any past or present experience arranging or receiving long-term care assistance for *yourself?*	Yes/No
	Do you have any past or present experience providing or arranging long-term care assistance for *another adult*?	Yes/No
Race/ Ethnicity	Indicate your race/ethnicity.	Non-Hispanic White Black Hispanic/Latino
Gender	What is your sex?	Male or Female
Marital Status	What is your marital status?	Now married/ Cohabitating; Widowed; Divorced; Separated Never married

Demographics. Race/ethnicity will be obtained using one item requesting respondent to indicate race/ethnicity among the three studied groups. Gender and marital status will each be single item questions.

III.3. Data Analysis

This study used self-report data obtained from the 80-item survey and demographic sheet responses. Respondent data was compared by job category. A number of summary and bivariate statistical procedures, as well as hierarchical OLS and binary logistic regression were employed to best analyze and interpret the data.

III.3.1. Statistical Procedures

First, a number of summary statistics were utilized to describe sample data characteristics. The proportional makeup of job category and race/ethnicity were explored and compared back to population figures. Data were examined at the univariate, bivariate, and multivariate levels prior to engaging in analyses in order to ensure relevant assumptions were met for the respective level of analysis. For example, data were examined for normality of distribution at the univariate level; homogeneity of variance in groups, independence of observations, and normal distribution of dependent variables (Healey, 1999) for t-tests; independence of observations for chi-square and correlational procedures (Howell, 2002); and linearity, homoskedasticity, independence, and normality of the error terms (Hair, et al, 1998) for multiple

regression. Additionally, consistency reliability (alpha) testing was conducted on all six PFCN scales in the LTCP survey.

III.3.2. Study Aims and Analysis Strategies

Several strategies were employed to analyze each of the study aims. This subsection delineates the analysis strategies for each of the study aims and identifies the respective research questions and hypothesis of each aim.

Aim 1: The first study aim is to describe the LTC planning behavior of baby-boom aged adults. This study aim has three research questions and related hypotheses.

Research Question 1.1 – Descriptive

What is the *extent of LTC planning* of baby-boom aged adults and how is it influenced by resources, vulnerability, and demographics (control variables)?

H1.1.: Baby-boom aged adults who:

a) are older,

b) have higher levels of education

c) have higher levels of income,

d) are married,

e) are women,

f) have a higher number of chronic conditions,

g) have more knowledge of LTC options,

h) have prior LTC experience-self,

i) have prior LTC experience-other, and/or

j) who are White

are likely to plan more than their age peers with lower levels of SES, who are not married, who are men, who are younger, who have fewer chronic conditions, who have no prior LTC experience, and/or who are non-White.

Research Question 1.2 – Descriptive

What is the level of *saving behavior specifically for potential LTC* needs of baby-boom aged adults and how is it influenced by resources, vulnerability, and demographics (control variables)?

H1.2: Baby-boom aged adults who:

a) are male,

b) are married,

c) are older,

d) have higher levels of income, and/or

e) have higher levels of education

are more likely to save specifically for LTC than their age peers who are female, not married, younger, and/or with lower levels of SES.

Research Question 1.3 – Descriptive

What is the level of *LTC insurance purchase* among baby-boom aged adults and how is it influenced by resources, vulnerability, and demographics (control variables)?

First, Aim 1 analysis included descriptive statistics to describe the distribution of long-term care planning behavior variables. Second, in order to ascertain their singular association with the various dependent variables, control variables were analyzed using bivariate methods. Hypotheses 1.1 and 1.2, specifically, were tested using a series of t-tests, correlations, and ANOVA procedures. For the dependent variable extent of planning, each control variable was examined for its association with extent of planning as a total score of the three components. Associations were examined between each of the control variables and the two other dependent variables, savings and LTC insurance purchase, as well.

Aim 2: To examine baby-boom aged adults' views on whose responsibility is the planning/provision/cost of LTC. This study aim is specified as one research question and related hypotheses.

Research Question 2.1 – Descriptive

Who do Baby-Boom aged adults view as responsible for the planning/provision/cost of LTC and how are views influenced by resources, vulnerability, and demographics?

H2.1: Baby-boom aged adults who:

a) have lower income,

b) have lower education, and/or

c) who are non-White

are more likely to believe the government to be responsible for the provision of LTC than their age peers with higher SES and/or who are White.

Descriptive statistics were run on the four composite factors—individual responsibility, adult child responsibility, employer responsibility, and government responsibility—making up the variable location of responsibility in order to describe the distribution of each. Bivariate analyses were also conducted in order to examine the relationship between each of the control variables and each of the composite factors, as well as between each of the "other" research variables (awareness, worthwhileness, subjective norm, perceived control) and the location of responsibility factors.

Aim 3: To examine the influence of potential predictors of individuals' LTC planning behavior with specific focus on the influence of location of responsibility. This study aim has one research question and related hypotheses.

Research Question 3.1 – Explanatory

What factors influence individuals' LTC planning behavior (extent of LTC planning -- gathering information, making decisions, and concretizing LTC plans; saving specifically for LTC needs; and purchase of LTC insurance)?

H3.1: Baby-boom aged adults' who:

a) have higher levels of awareness of potential LTC needs,

b) who believe planning to be worthwhile,

c) who believe family members view planning as important,

d) who have higher levels of self-efficacy, and/or

e) higher levels of control belief

will have a greater extent of planning, be more likely to have saved specifically for LTC, and be more likely to have purchased LTC insurance.

H3.2.: Baby-boom aged adults' who believe individuals have a high level of responsibility for LTC will have a greater extent of LTC planning, will be more likely to have saved specifically for LTC, and be more likely to have purchased LTC insurance.

To test the primary research hypotheses, H3.1 and H3.2, regression analyses were employed. Specifically, LTC planning, LTC savings, and LTC insurance purchase were regressed on the following variables: LOR, awareness, worthwhileness, family members' views (subjective norm), self-efficacy and controllability (perceived control), and control variables (resources – education, income, knowledge, prior experience; vulnerability – age, chronic illness; and demographics – gender, race/ethnicity, marital status). The two hypotheses—H3.1, predicting that the research variables minus LOR will influence planning while controlling for control variables, and H3.2, predicting that LOR will have an influence on planning while controlling for control variables and controlling for the other research variables—were tested using multiple OLS and binary logistic regression analyses, dependent on the level of measurement of each dependent variable.

Hierarchical regression, specifically, was used. Table III.7 below indicates the model type for each of the hierarchical regressions. *Hierarchical* regression was chosen to help determine the unique and additional contribution (Tabachnick & Fidell, 2001) of LOR to the prediction of extent of planning, LTC savings, and LTCI purchase over and above the other variables: resources, vulnerability, demographics, awareness, worthwhileness, subjective norms, and perceived control beliefs. Given the overall goal to determine what factors influence extent of LTC planning, savings, and LTC insurance purchase while controlling for resources, vulnerability, and other demographics, it was important to specify the order in which these variables entered the regression equation.

Table III.7: Hierarchical Regression Models by Dependent Variable

Dependent variable	Statistical Method/Model
Extent of Planning (score)	Hierarchical Multiple Regression – OLS
LTC savings (dichotomous)	Hierarchical Logistic Regression
LTCI purchase (dichotomous)	Hierarchical Logistic Regression

III.3.3. Missing Data Analysis.

Of the original sample of 2,022, 1,166 individuals responded to the survey, for a response rate of 58 percent. Prior to employing statistical methods, the data were examined for missing data and outliers. Cases with missing data for more than 50 percent of variables were eliminated from the analysis altogether, as were cases that selected "other" or were "missing" for race/ethnicity and for age. The resulting study sample size was 1,066. For multivariate analyses, listwise deletion of cases with missing data was used (Hair, et al, 1998). As a result For Study Aim Three, in the multivariate analyses for the three dependent variables – extent of planning, LTC-specific savings,

LTCI purchase – the following number of employed baby boom-aged adults was used: 965, 940, and 955, respectively.

IV. RESULTS

IV.1. Sample Characteristics

This chapter presents the sample characteristics and findings related to each research question. Before addressing specific research questions, sample characteristics were first examined. Characteristics of the entire sample as well as by job category group were computed.

IV.1.1. Sample Characteristics - Aggregate

Survey responders are all between the ages of 45 and 63, with a mean age of 52 years (mode 54). The study sample is comprised of 12 percent Blacks, 27 percent Hispanic/Latino, and 62 percent Non-Hispanic Whites. Forty-nine percent of the survey respondents are Administrators/Executives/Other Professionals, 31 percent are Faculty, and 30 percent are Non-Professional staff. A little over half of the study sample is female (55 %). Almost two-thirds (65 %) of the study sample has *at least* a college degree. Over one third (36 %) of the study sample has an income of $100,000 or more, with one third (33 %) having an income between $60,000 and $100,000, and less than one third (29 %) having an income of less than $60,000.

IV.1.2. Sample Characteristics – By Job Category

The proportion of respondents by job category is sufficiently reflective of the overall population: 49 percent (518) Administrative/Executive/Other Professional, 31 percent (195) Faculty, and 30 percent (320) Non-Professional staff in the study sample,

compared with 40 percent Administrative/Executive/Other Professional staff, 22 percent Faculty, and 38 percent Non-Professional staff in the overall population. The overall proportions of the three studied racial/ethnic groups are also representative of the study population: 12 percent Black, 27 percent Hispanic/Latino, and 62 percent Non-Hispanic White in the study sample, compared with 5.9 percent Black, 17.5 percent Hispanic/Latino, and 76.4 percent Non-Hispanic White in the study population. Oversampling in the smallest cells (Black Administrators/Executives/Other Professionals, Black Faculty, Hispanic/Latino Faculty) was achieved. See Table IV.1-A and Table IV.1-B below for details.

Table IV.1-A Job Category by Race/Ethnicity (Study Sample)

n = 1,033			Race/Ethnicity			Total
			Black	Hispanic/Lat	Non-Hisp White	
Job Category	Adm/Ex /Mgmt	N	49	157	312	518
		% job cat	9.5%	30.3%	60.2%	100.0%
		% of Total	4.7%	15.2%	30.2%	50.1%
	Faculty	N	18	31	146	195
		% job cat	9.2%	15.9%	74.9%	100.0%
		% of Total	1.7%	3.0%	14.1%	18.9%
	Non-Prof	N	50	79	191	320
		% job cac	15.6%	24.7%	59.7%	100.0%
		% of Total	4.8%	7.6%	18.5%	31.0%
Total		N	117	267	649	1033
		% job cat	11.3%	25.8%	62.8%	100.0%
		% of Total	11.3%	25.8%	62.8%	100.0%

Table IV.1-B Job Category by Race/Ethnicity (Study Population)

n = 10,363			Race/Ethnicity			Total
			Black	Hispanic/Lat	Non-Hisp White	
Job Category	Adm/Ex/ Mgmt	N	174	498	3,444	4,116
		% job cat	4.2%	12.1%	83.7%	100.0%
		% of Total	1.7%	4.8%	33.2%	39.7%
	Faculty	N	89	137	2,080	2306
		% job cat	3.8%	5.9%	90.1%	100.0%
		% of Total	. 9%	1.3%	20.1%	22.2%
	Non-Prof	N	354	1187	2400	3941
		% job cat	8.9%	30.1%	60.8%	100.0%
		% of Total	3.4%	11.5%	23.2%	38.0%
Total		N	617	1822	6757	10363
		% job cat	6%	17.6%	76.5%	100.0%
		% of Total	11.3%	25.8%	62.8%	100.0%

Sample characteristics by job category are presented in Table IV.2 below. Of the variables compared, the groups differ significantly on gender, racial/ethnic variables, income, and education. There are no significant differences on age and marital status. The mean age in all three groups is 52 years. The proportion of married respondents ranges from 66 percent (nonprofessional) to 74 percent (faculty), but the difference is not statistically significant ($p \geq .05$). For **gender**, whereas 43 percent of Faculty and 48 percent of Non-Professionals are female, 64 percent of Administrators/Executives/Other Professionals are female ($p < .001$). Post-hoc tests reveal the Faculty and Non-Professional groups to be statistically different from the Administrator/Executive group but not from each other. Significant differences exist in all three **racial/ethnic groups**. The Administrator/Executive/Other Professional and Faculty groups both have 9 percent Black makeup and the Non-Professional group has 16 percent ($p < .05$); however, the

post-hoc tests reveal a significant difference between the Administrator/Exec/Other Professional and Non-Professional groups only. The Administrator/Exec/Other Professional group has 30 percent Hispanic/Latino make-up, the Faculty group 16 percent, and the Non-Professional group 25 percent ($p < .001$). The post-hoc tests indicated significant difference between the Administrator/Exec/Other Professional and Faculty groups only. In the Non-Hispanic White racial/ethnic category, both the Administrator/Exec/Other Professional and the Non-Professional groups are 60 percent Non-Hispanic White and the Faculty group is 75 percent Non-Hispanic White ($p < .001$). The post-hoc tests indicated the Administrator/Exec/Other Professional group and the Non-Professional group are significantly different than the Faculty group.

The job category groups show distinct difference in mean **family income** ($p < .001$) as well. On an ordinal scale of 1 to 7, with the lowest score representing "less than $30,000" and the highest score representing "$200,000 or more", the Faculty has a mean score of 5.68 ($100,000 to $199,999), the Administrator/Executive/Other Professional group has a mean score of 4.67 ($75,000 to $99,999), and the Non-Professional group has a mean score of 3.67 ($60,000 to $74,999). Post-hoc tests reveal that the three groups are all significantly different from each another.

Lastly, the job category groups all differ on level of **education** ($p < .001$). The mean number of years of education for the Administrator/Executive/Other Professional group is 16, the Faculty group is 20, and the Non-Professional group is 14. Post-hoc tests reveal that the three groups are all significantly different from each another.

Table IV. 2. Sample Characteristics by Job Category

	Group Mean (standard deviation)				ANOVA test		
	Adm/Mgt	Faculty	NonProf	Tot.	F value[a]	p value	Post hoc (Bon)[b]
Age	52 (4.10)	52 (4.47)	52 (4.13)	52 (2; 1030)	2.00	p ≥ .05	N.A.
Gender (female)[c]	.64 (.48)	.43 (.50)	.48 (.50)	.55 (2; 1029)	18.83	p < .001	A≠F A≠NP F≈NP
Black/NonWhite[c]	.09 (.29)	.09 (.29)	.16 (.36)	.11 (2; 1030)	4.29	p < .05	A≈F A≠NP F≈NP
Hisp./NonWhite[c]	.30 (.46)	.16 (.37)	.25 (.43)	.26 (2; 1030)	7.94	p < .01	A≠F A≈NP F≈NP
White/NonHisp.[c]	.60 (.49)	.75 (.43)	.60 (.49)	.63 (2; 1030)	7.57	p < .01	A≠F A≈NP F≠NP
Income	4.67 (1.57)	5.68 (1.14)	3.67 (1.47)	4.54 (2; 1010)	116.33	p < .001	A≠F A≠NP F≠NP
Education	16 (2.71)	20 (2.97)	14 (2.11)	16 (2; 1025)	308.18	p < .001	A≠F A≠NP F≠NP
Marital Status (married)[c]	.70 (.46)	.74 (.44)	.66 (.47)	.70 (2; 1024)	1.79	p ≥ .05	N.A.

[a] The number to the left in the parentheses refers to the degree of freedom (df) for between group level while the number to the right indicates the df for within group level.

[b] A, F, and NP denote Administrator/Manager, Faculty, and Non-Professional group, respectively. The symbol ≠ indicates that the null hypothesis (the group means are the same) is rejected while ≈ signifies the null is retained at the alpha of .05.

[c] Indicates a dichotomous variable. Therefore, a mean refers to the proportion of individuals with the characteristic relevant to the variable within each job category group.

Research variables by job category are presented in Table IV.3 below. Of the variables compared, the groups differ significantly on awareness, avoidance, worthwhileness, self-efficacy, control belief, individual responsibility, and child(ren) responsibility. There are no significant differences on subjective norm, employer responsibility, or government responsibility. For the research variable planning **awareness**, all three groups (Admin/Exec/Other Professional – 19.24, Faculty – 18.26,

and – 19.57) are just above the midpoint (18), with Faculty faring the worst (range 6 to 30, higher scores mean more awareness). The mean Faculty score is significantly different from both the Admin/Exec/Other Professional and the Non-Professional groups. On planning **avoidance**, the Admin/Exec/Other Professional (7.41) group and Faculty (7.51) groups are significantly lower (range 3 to 15, lower scores mean less avoidance) from the Non-Professional (8.20) group, but not from each other. Admin/Exec/Other Professional (11.99) and Faculty (11.12) groups also differ significantly from the Non-Professional (13.84) group on the planning **worthwhileness** variable, but again, not from each other, with Non-Professionals having the highest scores on average (range: 7 to 35; lower scores indicate *more* worthwhileness).

Regarding the **self-efficacy** variable, the Admin/Exec/Other Professional (3.84) and Faculty (3.94) group differ significantly (higher) from the Non-Professional (3.65) group, but not from each other; but on the **control belief** variable, only the Admin/Exec/Other Professional (4.13) group differs significantly (higher) from the Non-Professional (3.86) group (range for both: 1 to 5; higher scores indicate stronger belief).

For the responsibility variables, on **individual responsibility**, the Admin/Exec/Other Professional (13.56) group and Faculty (13.47) group differ significantly (higher) from the Non-Professional group (12.83), but not from each other; and on the **child(ren) responsibility** variable, only the Admin/Exec/Other Professional (10.72) group and the Non-Professional (10.04) group differ significantly from each other, with Admin/Exec/Other Professionals having the higher average score for

child(ren) responsibility (range for LOR variables: 3 to 15 ; with higher scores indicating more responsibility, after reverse coding).

Table IV.3. Research Variables by Job Category

	Group Mean (Standard Deviation)				ANOVA test		
	Adm/Exec/ Other Prof	Fac	NonProf.	Total	F-value[a]	P-value	Post Hoc (Bon)[b]
Awareness	19.24 (4.86)	18.26 (4.92)	19.57 (4.68)	19.15 (4.84)	4.64 (2, 1030)	$p < .01$	A ≠ F A ≈ NP F ≠ NP
Avoidance	7.41 (2.86)	7.51 (2.97)	8.20 (3.01)	7.67 (2.94)	7.57 (2, 1025)	$p < .001$	A ≈ F A ≠ NP F ≠ NP
Worthwhileness*	11.99 (4.58)	11.12 (3.93)	13.84 (5.44)	12.40 (4.86)	23.60 (2, 1030)	$p < .001$	A ≈ F A ≠ NP F ≠ NP
Subjective Norm	3.86 (1.10)	3.84 (1.08)	3.81 (1.12)	3.84 (1.10)	.28 (2, 1029)	$p \geq .05$	NA
Self Efficacy	3.84 (1.06)	3.94 (.91)	3.65 (1.10)	3.80 (1.05)	5.41 (2, 1025)	$p < .01$	A ≈ F A ≠ NP F ≠ NP
Control Belief	4.13 (1.02)	4.08 (1.02)	3.86 (1.15)	4.04 (1.06)	6.38 (2, 1024)	$p < .01$	A ≈ F A ≠ NP F ≈ NP
Indiv. Respons.	13.56 (2.37)	13.47 (2.40)	12.83 (2.79)	13.32 (2.53)	8.81 (2, 1026)	$p < .001$	A ≈ F A ≠ NP F ≠ NP
Child. Respons.	10.72 (2.88)	10.45 (2.85)	10.04 (3.12)	10.46 (2.96)	5.25 (2, 1026)	$p < .01$	A ≈ F A≠ NP F ≈ NP
Employ. Respons.	10.15 (3.03)	9.73 (3.24)	10.24 (3.12)	10.10 (3.10)	1.81 (2, 1027)	$p \geq .05$	NA
Govern. Respons.	10.62 (3.33)	10.95 (3.17)	10.68 (3.54)	10.70 (3.36)	.69 (2, 1028)	$p \geq .05$	NA

[a] The number to the left in parenthesis refers to the degrees of freedom for between group level while the number to the right indicates df for between group level; [b] A, F, and NP denote Administrator/Executive/Other Professional, Faculty, and Non-Professional groups, respectively. The symbol ≠ indicates that the null hypothesis (the group means are the same) is rejected while = signifies the null is retained at the alpha of .05; * lower scores of worthwhileness indicate greater belief in worthwhileness.

IV.2. LTC Planning Behavior and the Effects of Resources, Vulnerability, and Demographics

The first study aim is to *describe* the LTC planning behavior (extent of LTC planning -- gathering information, making decisions, concretizing; LTC savings, and LTC insurance purchase) among baby boom aged adults. The following research questions and hypotheses were developed for this objective:

Research Question 1.1 – Descriptive

What is the *extent of LTC planning* of baby-boom aged adults and how is it influenced by resources, vulnerability, and demographics (control variables)?

H1.1.: Baby-boom aged adults who:

a) are older,

b) have higher levels of education

c) have higher levels of income,

d) are married,

e) are women,

f) have a higher number of chronic conditions,

g) have more knowledge of LTC options,

h) have prior LTC experience-self,

i) have prior LTC experience-other, and/or

k) who are White

are likely to plan more than their age peers with lower levels of SES, who are not married, who are men, who are younger, who have fewer chronic conditions, who have no prior LTC experience, and/or who are non-White.

Research Question 1.2 – Descriptive

What is the level of *saving behavior specifically for potential LTC* needs of baby-boom aged adults and how is it influenced by resources, vulnerability, and demographics (control variables)?

H1.2: Baby-boom aged adults who:

a) are male,
b) are married,
c) are older,
d) have higher levels of income, and/or
e) have higher levels of education

are more likely to save specifically for LTC than their age peers who are female, not married, younger, and/or with lower levels of SES.

Research Question 1.3 – Descriptive

What is the level of *LTC insurance purchase* among baby-boom aged adults and how is it influenced by resources, vulnerability, and demographics (control variables)?

To answer these research questions, a series of descriptive and bivariate analyses were conducted. First, descriptive analyses were used to examine the distribution of the long-term care planning behavior variables. Second, in order to ascertain their singular association with the various dependent variables, the control variables were analyzed using correlation analyses.

Table IV.4 below presents the descriptive findings for long-term care planning behavior variables by job category.

Table IV.4. Dependent Variables by Job Category

	Group Mean (Standard Deviation)				ANOVA test		
	Adm/Exec/ Other Prof.	Fac.	NonProf.	Total (n-1033)	F-value[a]	P-value	Post Hoc (Bon)[b]
Extent of Planning	50.66 (16.33)	51.37 (14.10)	48.50 (15.19)	50.13 (15.61)	2.64 (2, 1025)	p ≥ .05	NA
Gather	17.79 (6.71)	17.54 (6.28)	17.19 (6.23)	17.56 (6.49)	.84 (2, 1029)	p ≥ .05	NA
Decide	16.11 (5.25)	16.28 (4.78)	15.64 (5.16)	16.00 (5.14)	1.17 (2,1027)	p ≥ .05	NA
Concretize	16.74 (6.65)	17.56 (5.70)	15.66 (6.17)	16.56 (6.37)	5.82 (2, 1026)	p < .01	A ≈ F A ≠ NP F ≠ NP
LTC insurance-all[c]	.41 (.49)	.33 (.47)	.42 (.49)	.40 (.49)	2.55 (2, 1030)	p ≥ .05	NA
LTC insurance-employer[c]	.37 (.48)	.27 (.44)	.39 (.49)	.36 (.48)	4.61 (2, 1030)	p < .01	A ≠ F A ≈ NP F ≠ NP
LTC insurance-other[c]	.05 (.23)	.08 (.27)	.06 (.24)	.06 (.24)	.81 (2, 1030)	p ≥ .05	NA
LTC Specific Savings[c]	.30 (.46)	.37 (.48)	.30 (.46)	.31 (.46)	1.75 (2, 1030)	p ≥ .05	NA

[a] The number to the left in parenthesis refers to the degrees of freedom for between group level while the number to the right indicates df for between group level.

[b] A, F, and NP denote Administrator/Executive/Other Professional, Faculty, and Non-Professional groups, respectively. The symbol ≠ indicates that the null hypothesis (the group means are the same) is rejected while = signifies the null is retained at the alpha of .05.

[c] Indicates a dichotomous variable. Therefore, a mean refers to the proportion of individuals with the characteristic relevant to the variable.

IV.2.1. Extent of Planning

The average score on the dependent variable "extent of LTC planning" was 50 (range: 20 to 100, higher scores indicating a higher extent of long-term care planning). Seventy-three percent (n = 777) were at or below the midway score of 60. The following are the means for the subscales of the "extent" variable as seen in Table IV-2.1 above: gathering – 17 (range: 7 – 35; median - 21); deciding – 16 (range: 6 – 30; median - 18); concretizing – 17 (range: 7 – 35; median 21).

For the dependent variable extent of planning**, results for seven of the control variables support the hypotheses (H1.1).** Among the control variables (a. age; b. education; c. income; d. marital status; e. gender; f. chronic conditions; g. LTC knowledge; h. experience-self; i. experience-other; and j. White) hypothesized to be in a bivariate directional relationship with "extent of LTC planning," the seven with statistically significant relationships are: **age (a), income (c), marital status (d), gender (e), LTC knowledge (g), experience-self (h), and experience-other (i)**. Significant bivariate correlations between control variables and all dependent variables are shown in Table IV.5 below.

As predicted, **age** (a) has a significant correlation ($r = .12$, $p < .001$) with extent of planning ("extent"). Examined as a dichotomous variable (older baby boomers versus younger baby boomers), the hypothesis that older boomers (54-63 years) are more likely to have planned at a higher level is supported ($t = 3.88$, $p < .001$). Of the SES variables, **income** (c) has a small, positive relationship ($r = .11$, $p < .001$) with "extent" as

predicted, but education has no significant relationship. Thus, individuals with higher levels of income have a higher extent of planning score. Also as predicted, **married individuals** (d; r = .10, p < .01), **women** (e; r = .11, p < .001), individuals with self-reported **"knowledge of LTC"** (g; r = .42, p < .001), individuals with **prior LTC experience-self** (h; r = .13, p < .001) and individuals with prior **LTC experience-other** (i; r = .32, p < .001) are all more likely to have a higher extent of planning score. Chronic medical condition count and White did not have significant relationships with "extent" as predicted. However, **Hispanic** (r = -.08, p < .05) has a significant negative association with "extent." IADLs, a non-hypothesized control variable, also has no significant relationship.

Table IV.5. Correlation Table: Significant Controls by Dependent Variable

Extent of Planning		*LTC Specific Savings*		*LTC Insurance Purchase*	
Variable	Corr.	Variable	Corr.	Variable	Corr.
Age	.12***	**Income**	.13***	LTC Knowledge	.09**
Income	.11***	**Married**	.08**	Exp. – self	.09**
Married	.10**	Knowledge	.17***	Chr. Med. Cond.	.09**
Female	.11***	Exp. – other	.13***	IADL	.08*
Knowledge	.42***			Black	.10***
Exp. – other	.32***			White	-.09**
Exp. – self	.13***				
Hispanic	-.08*				

* p value < .05; ** p value <.01; *** p value < .001; variables in bold are in accordance with hypotheses.

IV.2.2. Long-Term Care Specific Savings

Less than one third of respondents (31 %, n = 332) reported that they save specifically for potential LTC needs. As indicated in Table IV-2.1 above, Faculty have the highest percentage of respondents with LTC specific savings -- 37 percent versus 30

percent for both Admin/Exec/Other Professional and Non-Professional groups. For the dependent variable LTC specific savings, **results for two of the control variables support the hypotheses (H1.2).** Among the control variables hypothesized (a. gender, b. marital status, c. age, d. income, and e. education) to be in a bivariate directional relationship with LTC specific savings, only ***marital status*** *(b)* and ***income*** *(d)* have a significant relationship (as indicated in Table IV.5 above). Both have a small positive relationship (Phi = .08, $p < .01$; $r = .13$, $p < .001$, respectively). Thus, married individuals and individuals with higher levels of income are more likely to save specifically with potential LTC needs in mind as predicted. Two other (non-hypothesized) control variables have significant bivariate relationships with "LTC-specific savings": **LTC knowledge** and **prior experience – other**. LTC knowledge and prior LTC experience-others both also have a small positive relationship with LTC specific savings ($r = .17$, $p < .001$; and Phi = .13, $p < .001$, respectively). Thus, individuals with a higher level of LTC knowledge and individuals with prior LTC experience with others are more likely to report saving specifically with LTC in mind. Age, education, gender, chronic medical conditions, IADLs, prior experience – self, and race/ethnicity (Black, Hispanic, White as dichotomous variables) all have no significant bivariate relationship with LTC specific savings.

IV.2.3. Long-Term Care Insurance Purchase

Almost 40 percent of respondents (n = 423) report that they have purchased LTC insurance, either through the university (36 %, n= 382) or through the open market/spouse employer (6 %, n = 63). As indicated in Table IV-2.1, the Faculty (27 %)

job category has a significantly lower percentage of employer-sponsored LTCI purchasers than do the Admin/Exec/Other Professional (37 %) and Non-Professional (39%) categories. With the open market and employer-sponsored LTCI purchasers combined, the difference remains but is no longer significant (A/E/OP – 41%; F – 33%; NP—42%). As indicated in Table IV-2.2. above, among the 13 control variables examined (none have related hypotheses), six have significant bivariate relationships with LTC insurance purchase. **Black** ($r = .10$, $p < .001$), **Chronic medical condition** ($r = .09$, $p < .01$), **IADL Limitation** ($r = .08$, $p < .05$), **LTC knowledge** ($r = .09$, $p < .01$), and **Experience-self** ($r = .09$, $p < .01$) and all have a small, positive relationship. **White** ($r = .09$, $p < .01$**) has a small negative relationship.

IV.3. Location of Responsibility and the Effects of Resources, Vulnerability, and Demographics

The second study aim is to examine baby-boom aged adults' views on whose responsibility is the planning/provision/cost of location of responsibility (LOR).The following research question and hypothesis were developed for this objective:

Research Question 2.1 – Descriptive

Who do Baby-Boom aged adults view as responsible for the planning/provision/cost of LTC and how are views influenced by resources, vulnerability, and demographics?

H2.1: Baby-boom aged adults who:

a) have lower income,

b) have lower education, and/or

c) who are non-White

are more likely to believe the government to be responsible for the provision of LTC than their age peers with higher SES and/or who are White.

To answer this research question both descriptive and bivariate analyses are employed. Descriptive statistics are used to determine the distribution of the LOR related variables. Bivariate analyses are used to determine the relationship between the LOR variables (at the aggregate and singular levels) and the resources, vulnerability, and demographic, or control, variables.

The LOR variables were examined at the aggregate level (individual responsibility, adult children responsibility, employer responsibility, and government responsibility) first; then, at the singular variable level: individual plan, individual provide, individual pay, child plan, child provide, child pay, employer plan, employer provide, employer pay, government plan, government provide, and government pay. Aggregate variable scores combine the three singular scores (plan, provide, pay) for each of the four aggregate variables (individual, adult children, employer, and government responsibility). Scores for each of the aggregate variables range from 3 to 15, with higher scores indicating a belief in a higher level of responsibility for that entity. As shown in Table IV.6 below, at the aggregate level, individual responsibility has the

highest mean score (13.28), followed by government responsibility (10.72), adult children responsibility (10.44), and employer responsibility (10.13) – all well above the median score of 9.

Table IV.6. LOR Aggregate Variable Means

	N	Minimum	Maximum	Mean	Std. Deviation
Individual Respons.	1060	3.00	15.00	13.28	2.57
Child Respons.	1060	3.00	15.00	10.44	2.98
Employer Respons.	1061	3.00	15.00	10.13	3.11
Government Respons.	1061	3.00	15.00	10.72	3.37

At the singular variable level, scores range from 1 to 5 (not at all to a great deal) for each of the twelve variables. As seen below in Table IV.7, the top three highest mean scores are for the individual responsibility variables: in order, plan individual (gather information, discuss options, make decisions about potential LTC options for self, purchase long-term care insurance, save money for potential LTC needs; 4.59); arrange/provide individual (make arrangement for own LTC at own home or elsewhere; 4.55); and pay individual (pay for own care at own home or elsewhere; 4.13). Two adult children variables arrange/provide adult children (assist with making arrangements for individual's LTC; may assist by providing all or part of LTC; 3.79) and plan child (assist with gathering information, discussing, decision-making regarding potential LTC options if needed; 3.72) have the next highest means, followed by two each of the government responsibility variables: plan government (3.64) and provide government (3.58). Regressions were run with the aggregate variables as disaggregating the variables had no added value.

Table IV.7. LOR Individual Variable Means

	N	Minimum	Maximum	Mean	Std. Deviation
Plan Individual	1062	1.00	5.00	4.59	.93
Arr./Prov. Individual	1061	1.00	5.00	4.55	.96
Pay Individual	1061	1.00	5.00	4.13	1.11
Arr./Prov. Child	1061	1.00	5.00	3.79	1.11
Plan Child	1060	1.00	5.00	3.72	1.10
Pay Child	1060	1.00	5.00	2.93	1.31
Plan Employer	1061	1.00	5.00	3.58	1.19
Arr./Prov. Employer	1062	1.00	5.00	3.18	1.26
Pay Employer	1062	1.00	5.00	3.38	1.22
Plan Government	1062	1.00	5.00	3.64	1.26
Arr./Prov. Governmt	1061	1.00	5.00	3.58	1.33
Pay Government	1061	1.00	5.00	3.50	1.24

Bivariate analyses were conducted with control variables for each of the aggregate LOR variables. Table IV.8 below indicates the significant relationships at the bivariate level for the aggregate LOR variables.

For the LOR variables, only one – government responsibility – was hypothesized to be in a directional relationship with any of the control variables. Per the hypotheses (H:2.1), adults with a) lower income, b) with lower education, and/or c) who are non-White are more likely to believe the government to be responsible for the provision of LTC. Neither income nor education and **only one of the race/ethnicity variables was in support of the hypotheses. Only Hispanic ($r = .14$, $p < .001$) has a significant relationship as predicted; Hispanics are more likely to view the government to have greater responsibility for LTC.** They are also more likely to view employers as having greater responsibility ($r = .17$, $p < .001$). Conversely, **Whites** are less likely to believe the

government (r = -.11, p < .001) or employers (r = -.11, p < .001) to have greater responsibility for LTC. Income, education, and Black have no significant relationship with government responsibility. However, both **income** (r = .17, p < .001) and **education** (r = .16, p < .001) have a small, positive relationship with individual responsibility. Hispanic (r = -.13, p < .001) also has a significant negative relationship with individual responsibility, with Hispanics more likely to believe individuals have less responsibility.

Other (non-hypothesized) variables with significant relationships with *individual responsibility* include: **prior LTC experience – other** (r = .08, p < .05), **prior LTC experience – self** (r = -.06, p < .05*), and **IADL limitation** (r = .06, p < .05). Additional (non-hypothesized) variables with significant relationships with *adult child responsibility* include: **age** (r = -.10, p < .001), **LTC knowledge** (r = .08, p < .01), and **IADL limitations** (r = -.07, p < .05). Older boomers are thus significantly less likely to believe adult children to have greater responsibility, as are individuals with IADL limitations. Individuals reporting greater LTC knowledge are more likely to believe adult children to have greater responsibility. One additional (non-hypothesized) variable had a relationship with *government responsibility*: **female** (r = .10, p < .01). Females are more likely than males to believe the government to have greater responsibility for LTC. Other (non-hypothesized) variables having a significant relationship with *employer responsibility* include: **age** (r = .06, p < .05), **income** (r = -.09, p < .01), **education** (r = -.08, p < .05), and **female** (r = .10, p < .001). Older boomers and females are more likely to believe

employers to have greater LTC responsibility. Individuals with higher incomes and higher levels of education are less likely to believe employers to have LTC responsibility.

Table IV.8. Correlation Table: Significant Controls by LOR Variables

Individual Respons.		*Child/ren Respons.*		*Employer Respons.*		*Government Respons.*	
Variable	Corr.	Variable	Corr.	Variable	Corr.	Variable	Corr.
Income	.17***	age	-.10***	age	.06*	Female	.10**
Education	.16***	Knowledge	.08**	Income	-.09**	**Hispanic**	.14***
Exp. – other	.08*	IADL	-.07*	Education	-.08*	White	.11***
Exp. – self	-.06*			Female	.10***		
IADL	-.06*			Hispanic	.17***		
Hispanic	-.13***			White	-.16***		
White	.14***						

* p value < .05; ** p value < .01; *** p value < .001; variables in bold are in accordance with hypotheses.

IV.4. LTC Planning Behavior Predictors

The third study aim is to examine the influence of potential predictors of individuals' LTC planning behavior with specific focus on the influence of LOR. The following research questions and hypotheses were developed for this objective:

Research Question 3.1 – Explanatory

What factors influence individuals' LTC planning behavior (extent of LTC planning -- gathering information, making decisions, and concretizing LTC plans; saving specifically for LTC needs; and purchase of LTC insurance)?

H3.1: Baby-boom aged adults' who:

a) have higher levels of awareness of potential LTC needs,
b) who believe planning to be worthwhile,
c) who believe family members view planning as important,
d) who have higher levels of self-efficacy, and/or
e) higher levels of control belief

will have a greater extent of planning, be more likely to have saved specifically for LTC, and be more likely to have purchased LTC insurance.

H3.2.: Baby-boom aged adults' who believe individuals have a high level of responsibility for LTC will have a greater extent of LTC planning, will be more likely to have saved specifically for LTC, and be more likely to have purchased LTC insurance.

To answer these research questions, several hierarchical regression analyses were employed. Specifically, LTC planning, LTC savings, and LTC insurance purchase were regressed on the following variables: 1) control variables (resources – education, income, knowledge, prior experience; vulnerability – age, chronic illness, IADL limitations; and demographics – gender, race/ethnicity, marital status), and job category; 2) research variables (minus LOR) -- awareness, worthwhileness, family members' views (subjective norm), self-efficacy and controllability (perceived control); and 3) LOR variables. Specifically, the two hypotheses were tested using OLS and logistic regression analyses, dependent on the level of measurement of each dependent variable. For each of the regressions, three models were developed. Table IV.9-A to IV.9-C presents results of the three models for each of the three dependent variables.

Model1 includes the control variables (resources, demographics, and vulnerability) -- a total of 14 variables (marital status, race and job category are dummy-coded). This model examines the predictive contribution of the control variables as a block, as well as individually, on each of the dependent variables and establishes a baseline against which the research variables can be compared. Model2 adds the research variables – beliefs about potential need for (*awareness*, *avoidance*) and *worthwhileness* of LTC planning, *subjective norm*, and perceived control (*control-self* and *self-efficacy*), in order to establish their contribution to the explanation of variance beyond what is explained in the baseline (controls only) model. Model3 includes beliefs about whose responsibility is LTC (LOR variables), the primary research factor.

Table IV.9-A

Summary of Hierarchical OLS Regression Analysis for Variables Predicting Extent of LTC Planning (N = 965)

	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Resources									
Education	0.21	0.18	0.05	0.16	0.16	0.03	0.19	0.17	0.04
Income	0.94	0.36	0.10**	0.77	0.34	0.08*	0.78	0.34	0.08*
LTC – Exp.									
Self	5.77	1.86	0.09**	3.77	1.72	0.06*	3.52	1.71	0.05*
Other	6.44	0.92	0.21***	4.64	0.87	0.15***	4.75	0.86	0.15***
LTC Knowledge	4.49	0.37	0.36***	3.33	0.35	0.27***	3.28	0.35	0.27***
Demographics									
Gender[a]	2.24	0.90	0.07**	1.48	0.84	0.05	1.78	0.84	0.06*
Marital Stat.[b]	0.41	1.12	0.01	1.03	1.04	0.03	0.99	1.03	0.03
Black[c]	2.36	1.43	0.05	1.61	1.32	0.03	1.49	1.31	0.03
Hispanic[c]	-2.26	1.03	-0.06*	-2.24	0.95	-0.06*	-1.88	0.96	-0.05*
Faculty[d]	1.04	1.36	0.03	1.61	1.25	0.04	1.54	1.25	0.04
Non-prof.[d]	-0.02	1.10	0.00	-0.10	1.01	-0.00	0.06	1.01	0.02
Vulnerability									
Age	0.04	0.11	0.01	-0.004	0.10	-0.001	0.03	0.10	0.01
Med. Dx.	0.06	0.46	0.00	-0.34	0.43	-0.02	-0.27	0.42	-0.02
IADL Limitat.	-0.04	1.85	0.00	-1.08	1.70	-0.02	-1.20	1.70	-0.02
Recognition/Appraisal									
Awareness				0.92	0.10	0.28***	0.94	0.10	0.29***
Avoidance				-.68	0.16	-0.13***	-0.66	0.17	-0.12***
Subjective Norm									
Subjective Norm				0.59	0.89	0.04	0.58	0.39	0.04
Perceived Control Beliefs									
Self-Efficacy				0.49	0.49	0.03	0.36	0.49	0.02
Control-belief				0.35	0.48	0.02	0.38	0.48	0.03
Planning Beliefs									
Worthwhileness				0.04	0.11	0.01	-0.02	0.11	-0.01
Responsibility									
Individ							-0.40	0.18	-0.07*
Child							0.24	0.15	0.05
Employer							-0.26	0.18	-0.05
Governmt							-0.20	0.17	-0.04
R^2 (Change)		0.26			0.12			0.01	
F for change in R^2		24.12***			31.05***			4.38***	

[a]Females are the reference category; [b]Married is the reference category; [c]Whites are the reference category; [d]Admin/Exec/Other Professional is reference category; *p < .05, **p < .01, *** p < .001

Table IV.9-B

Summary of Hierarchical Binary Logistic Regression Analysis for Variables Predicting LTC-Specific Savings (N = 940)

	Model 1			Model 2			Model 3			95 %
Variable	*B*	*SE B*	*Exp(B)*	*B*	*SE B*	*Exp(B)*	*B*	*SE B*	*Exp(B)*	*C. .I*
Resources										
Education	-0.03	0.03	0.97	-0.04	0.03	0.96	-0.03	0.03	0.97	(0.91, 1.03)
Income	0.24	0.07	1.27***	0.20	0.07	1.22***	0.21	0.07	1.23***	(1.08, 1.41)
LTC – Exp.										
Self	0.15	0.30	1.17	0.00	0.31	1.00	-0.06	0.32	0.94	(0.51, 1.75)
Other	0.48	0.15	1.61***	0.35	0.16	1.42*	0.35	0.16	1.42*	(1.03, 1.95)
LTC Know.	0.25	0.06	1.28***	0.16	0.07	1.17*	0.17	0.07	1.19**	(1.04, 1.35
Demographics										
Gender[a]	0.01	0.15	1.01	-0.06	0.16	0.94	-0.06	0.16	0.95	(0.69, 1.30)
Marital Stat.[b]	-0.01	0.19	0.99	0.01	0.20	1.01	-0.04	0.20	0.97	(0.65, 1.44)
Black[c]	0.43	0.23	1.54	0.39	0.24	1.48	0.38	0.25	1.47	(0.91, 2.37)
Hispanic[c]	0.21	0.18	1.23	0.28	0.18	1.32	0.30	0.19	1.34	(0.93, 1.93)
Faculty[d]	0.36	0.22	1.43	0.39	0.23	1.48	0.44	0.24	1.55	(0.98, 2.45)
Non-prof.[d]	0.29	0.19	1.33	0.34	0.20	1.40	0.35	0.20	1.41	(0.96, 2.08)
Vulnerability										
Age	0.02	0.02	1.02	0.02	0.02	1.02	0.01	0.02	1.01	(0.98, 1.05)
Med. Dx.	-0.01	0.08	0.99	-0.02	0.08	0.98	-0.01	0.08	0.99	(0.84, 1.17)
IADL Limitat.	-0.13	0.32	0.88	-0.21	0.33	0.81	-0.25	0.34	0.78	(0.40, 1.52)
Recognition/Appraisal										
Awareness				0.03	0.02	1.03	0.04	0.02	1.04*	(1.00, 1.08)
Avoidance				-0.04	0.03	0.96	-0.03	0.03	0.97	(0.91, 1.03)
Subjective Norm										
Subjective Norm				0.20	0.08	1.23**	0.22	0.08	1.24**	(1.07, 1.44)
Perceived Control Belief										
Self-Efficacy				0.26	0.10	1.29**	0.26	0.10	1.29**	(1.06, 1.57)
Control belief				-0.14	0.09	0.87	-0.15	0.10	0.86	(0.72, 1.04)
Planning Beliefs										
Worthwhileness				-0.05	0.02	0.95*	-0.05	0.02	0.95*	(0.91, 0.99)
Responsibility										
Individ							0.01	0.04	1.01	(0.95, 1.08)
Child							-0.04	0.03	0.96	(0.91, 1.02)
Employer							0.08	0.04	1.09*	(1.01, 1.17)
Governmt							-0.10	0.03	0.91**	(0.85, 0.97)
χ^2 *(Block)*		65.54***			48.95***			10.52*		
df		14			6			4		

[a]Females are the reference category; [b]Married is the reference category; [c]Whites are the reference category; [d]Admin/Exec/Other Professional is reference category; *p < .05, **p < .01, *** p < .001

Table IV.9-C

Summary of Hierarchical Binary Logistic Regression Analysis for Variables Predicting Purchase of LTC Insurance (N = 955)

	Model 1			Model 2			Model 3			*95 %*
Variable	*B*	*SE B*	*Exp(B)*	*B*	*SE B*	*Exp(B)*	*B*	*SE B*	*Exp(B)*	*C. I.*
Resources										
Education	0.03	0.03	1.03	0.01	0.03	1.01	0.02	0.03	1.02	(0.96, 1.08)
Income	0.12	0.06	1.13*	0.06	0.06	1.06	0.07	0.06	1.07	(0.96, 1.21)
LTC – Exp.										
Self	0.68	0.29	1.97*	0.59	0.30	1.81*	0.55	0.30	1.74	(0.97, 3.12)
Other	-0.02	0.14	0.9	-0.10	0.15	0.91	-0.09	0.15	0.91	(0.68, 1.22)
LTC Know.	0.14	0.06	1.15*	0.08	0.06	1.08	0.08	0.06	1.08	(0.96, 1.22)
Demographics										
Gender[a]	0.17	0.14	1.18	0.08	0.15	1.08	0.06	0.15	1.06	(0.80, 1.42)
Marital Stat.[b]	-0.38	0.18	0.68*	-0.34	0.18	0.71	-0.36	0.18	0.70*	(0.49, 0.99)
Black[c]	0.57	0.22	1.77**	0.57	0.23	1.76*	0.53	0.23	1.70*	(1.09, 2.66)
Hispanic[c]	0.20	0.16	1.22	0.27	0.17	1.31	0.21	0.17	1.23	(0.89, 1.72)
Faculty[d]	-0.42	0.22	0.66*	-0.41	0.22	0.67	-0.43	0.22	0.65*	(0.42, 1.01)
Non-prof.[d]	0.16	0.17	1.17	0.21	0.18	1.23	0.20	0.18	1.22	(0.86, 1.72)
Vulnerability										
Age	-0.00	0.02	1.00	-0.01	0.02	0.99	-0.01	0.02	0.99	(0.96, 1.02
Med. Dx.	0.14	0.07	1.15	0.15	0.07	1.16*	0.15	0.07	1.17*	(1.01, 1.35)
IADL Limitat.	0.46	0.29	1.58	0.42	0.29	1.52	0.37	0.30	1.45	(0.81, 2.58)
Recognition/Appraisal										
Awareness				0.02	0.02	1.02	0.02	0.02	1.02	(0.98, 1.05)
Avoidance				-0.03	0.03	0.95	-0.03	0.03	0.95	(0.91, 1.03)
Subjective Norm										
Subjective Norm				-0.05	0.07	0.95	-0.05	0.07	0 .95	(0.84, 1.09)
Perceived Control Beliefs										
Self-Efficacy				0.19	0.09	1.21*	0.20	0.08	1.22*	(1.03, 1.45)
Control-belief				-0.02	0.08	0.98	0.00	0.09	1.00	(0.85, 1.18)
Planning Beliefs										
Worthwhileness				-0.06	0.02	0.94**	-0.07	0.02	0.94**	(0.90, 0.97)
Responsibility										
Individ.							-0.06	0.03	0.95	(0.89, 1.01)
Child							-0.01	0.03	0.99	(0.94, 1.04)
Employer							0.07	0.03	1.07*	(1.00, 1.14)
Governmt							-0.04	0.03	0.97	(0.91, 1.02)
χ^2 *(Block)*		42.80***			36.02***			7.98		
df		14			6			4		

[a]Females are the reference category; [b]Married is the reference category; [c]Whites are the reference category; [d]Admin/Exec/Other Professional is reference category; *p < .05, **p < .01, *** p < .001

IV.4.1. Regression A: Model 1-3: Extent of Planning

The overall Regression A, regressing all variables on extent of planning, was ***significant*** *with 40 percent of the variance explained by the model and a strong effect size (r = .63).*

The RegressionA-1 regression, examining just the effects of control variables on *extent of planning,* explained 26 percent of the variance (F(14,950) = 24.12***), with a strong effect size (r = .51). As in the bivariate analyses, **income** (*β* = .10**), **female** (*β = .07**)*, **Hispanic** (*β* = -.06**)*, **experience-self** (*β* = .09**)*, **experience-other** (*β* = 0.21***)*, and **LTC knowledge** (*β* = .36***) all have significant relationships with extent of planning; however, in the multivariate regression, age and marital status were not significant.

RegressionA-2, which examines the added effect of the research variables, minus LOR, as regressed on the dependent variable *extent* of planning, explains an additional twelve percent of the variance (F(6,944) = 31.05***), with a strong effect size of (r = .35) for the model. Both **awareness** (*β* = .28***) and **avoidance** (*β* = -.13***) have significant independent relationships with extent of planning, as predicted (H3.1), and thus increase understanding of the differences in extent of planning that are not explained by the control variables (Model1). Also in this model, the female coefficient (.05) drops below statistical significance. Experience-self drops to *β* =.06*, but remains significant, as do experience-other (to *β = .15***),* income (*β* =.08), and LTC knowledge *(to β = .27***).*

RegressionA-3 examines the added effect of the LOR variables as regressed on the dependent variable *extent of planning*. In Model3, only 1.2 percent of additional variance was explained by the model (F (4,940) = 4.38***) with a weak effect size of .10. **Individual responsibility** (*β = -.07**) is the only significant independent relationship in Model3 and is in the opposite direction of the hypothesis (H3.2). With the addition of the LOR variables, **female gender** becomes significant again (*β* = .06*), Hispanic (β = -.05*), experience-self (β = .05*), and avoidance (β = -0.12***) drop nominally, and *awareness* increases slightly *(β = .29***).*

In sum, in the results for the final model of Regression A, the overall model is significant; three research variables (awareness, avoidance, and individual responsibility) and six control variables (income, experience-self, experience-other, LTC knowledge, gender -female, Hispanic) have significant relationships with extent of planning. Two of the former (awareness, avoidance) support the hypotheses (H3.1). Results regarding individual responsibility, however, did not support the hypothesis (H3.2). Contrary to the hypotheses, individuals who believe in a higher level of individual responsibility are more likely to have a *lower* extent of planning. However, as predicted (H3.1), individuals with a higher level of awareness of planning are more likely to have a higher extent of planning; and conversely, individuals with a higher level of avoidance of planning are more likely to have a lower extent of planning**.** Individuals with higher income levels, females, having prior LTC experience (self or other), and/or having a higher level of LTC knowledge are all more likely to have a higher extent of planning.

Hispanics are more likely to have planned less. Adding the recognition/appraisal factors (awareness/avoidance) to the baseline model, in Model2, helped explain the effect of gender (female) and a small portion of the resource variables income, prior LTC experience (self and other), and LTC knowledge on extent of planning, and contributed to the overall effect on extent of planning. The other research variables -- worthwhileness, subjective norm, self-efficacy, control-self -- failed to contribute to the model. Lastly, in Model3, the location of responsibility (LOR) factors (individual responsibility) added minimally (1.2 percent) to the overall effect; and, the effect of being Hispanic and of experience-self is slightly explained by a belief in a higher level of individual responsibility for planning. The LOR variables also minimally strengthened the effect of awareness and caused female gender to be significant again.

IV.4.2. Regression C: Model 1-3 LTC-Specific Savings

*The overall RegressionC, regressing all variables on LTC-specific savings, is significant with a model χ^2 of 125.01*** (df = 24).*

The *RegressionC-1* logistic regression, examining the baseline effects of only control variables on LTC-specific savings, was statistically significant (χ^2 = 65.54***, df = 14). In the ModelC-1, three of the control variables have significant individual relationships with the dependent variable: **income** (Exp(B) = 1.27***), **experience-other** (Exp(B) = 1.61***), and **LTC knowledge** (Exp(B) = 1.28***).

The *RegressionC-2* logistic regression, examining the added effect of the research variables, minus LOR, is statistically significant (χ^2 = 48.95***, df = 6). In this model,

three of the research variables have significant associations as predicted (H3.1): ***worthwhileness*** (Exp(B) = .95*), ***self-efficacy*** (Exp(B) = 1.29**), and ***subjective norm*** (Exp(B) = 1.23**). Also, after adding these additional factors, income dropped to 1.22***, LTC experience-other dropped to 1.42*, and LTC-knowledge dropped to 1.17*.

The *RegressionC-3* logistic regression, examining the added effect of the LOR variables, was statistically significant (χ^2 = 10.52*, df = 4). In ModelC-3, two of the added variables have a significant association: **employer responsibility** (*Exp(B)* = 1.09*) and **government responsibility** (*Exp(B)* = .91**). The hypothesis (H3.2) that baby-boom aged adults' who believe *individuals* have a high level of responsibility for LTC will be more likely to have saved specifically for LTC was not supported. After adding the LOR variables, income increased to 1.23, LTC-knowledge increased to 1.19, and subjective norm increased to 1.24; additionally, **awareness** became significant (*Exp(B)* = 1.04).

In sum, in the results for the RegressionC, the overall model is significant and six of the research variables (worthwhileness, subjective norm, self-efficacy, awareness, employer responsibility, and government responsibility) and three of the control variables (income, experience-other, and LTC knowledge) in the model have significant independent relationships with LTC-specific savings; four of research variables (awareness, worthwhileness, subjective norm, and self-efficacy) are in support of the hypotheses (H3.1). The hypothesis about individual responsibility (H3:2) was not supported. However, individuals with higher scores on employer responsibility have an odds of LTC-specific savings of 1.09, contrasted with those with

higher scores on government responsibility who have an odds of LTC-specific savings of .91. Individuals with a higher score on planning worthwhileness have an odds of LTC-specific savings of .95. However higher scores of planning worthwhileness demonstrate lower perceived worthwhileness of LTC planning. Thus, individuals who believe LTC planning to have a greater worthwhileness have an odds of LTC-specific savings of 1.05. Individuals with a higher score on subjective norm (family member/s place importance on LTC planning) have an odds of LTC-specific savings of 1.24. Individuals with a higher score on self-efficacy have an odds of LTC-specific savings of 1.29. Individuals with a higher score on LTC planning awareness have an odds of LTC-specific savings of 1.04. Individuals who have higher incomes have an odds of LTC-specific savings of 1.23. Individuals with prior LTC experience-other have an odds of LTC-specific savings of 1.42. Individuals with a higher level of LTC knowledge have an odds of LTC-specific savings of 1.19. Adding the research variables (worthwhileness, avoidance, self-efficacy, and subjective) to the baseline model, in model2, explains a small portion of the variance previously explained by income, experience-other, and LTC knowledge and contributed to the overall effect on LTC-specific savings. The other research variables – control-self and avoidance -- failed to contribute to the model. The addition of the LOR (employer and government responsibility) variables, in model3, contributed to the overall model and caused awareness to become significant and increased the odds of income, LTC-knowledge, and subjective norm.

IV.4.3. Regression B: Model 1-3 LTCI Purchase

*The overall RegressionB, regressing all variables on LTC insurance purchase, is significant with a model χ^2 of 86.80*** (df = 24).*

The *RegressionB-1* logistic regression, examining the baseline effects of only control variables on *LTC insurance purchase*, is statistically significant (χ^2 = 42.80***, df = 14). In the RegressionB-1, six of the control variables have significant individual relationships with the dependent variable: **income** (Exp(B) = 1.13*), **marital status** (Exp(B) = .68*), **Black** (Exp(B) = 1.77*), **faculty** (Exp(B) = .66*), **experience-self** (Exp(B) = 1.97*), and **LTC knowledge** (Exp(B) =1.15*).

The *RegressionB-2* logistic regression, examining the added effect of the research variables, minus LOR, is statistically significant (χ^2 = 36.02***, df =6). In the RegressionB-2, two of the added variables have significant associations with LTC insurance purchase as predicted (H3:1): **worthwhileness** (*Exp(B) =.94***) and **self-efficacy** (*Exp(B) = 1.21**). After adding these additional factors, Black odds decreased to 1.76* from 1.77,** LTC experience-self decreased to 1.81* from 1.97,* and, income, marital status, LTC knowledge, and faculty became not significant. Additionally, **medical diagnoses** (1.16*) count became significant.

The *RegressionB-3* logistic regression, examining the added effect of the LOR variables, was *not* statistically significant (χ^2 = 7.98, df = 4). In RegressionB-3, only one of the added variables has a significant association: **employer responsibility** (*Exp(B) = 1.07*).* The hypothesis (H3.2) regarding a high level of individual responsibility

influencing LTCI purchase was not supported. Also, after adding these additional factors, experience-self is no longer statistically significant, and Black (1.70 from 1.76) decreases in significance. Additionally, after adding the LOR variables, **faculty** (Exp(B) = .65*) and **marital status** (Exp(B) = .70*) become significant and medical diagnoses and self-efficacy increase with odds of 1.17 and 1.22, respectively, up from 1.16 and 1.21.

In sum, in the results for RegressionB, the overall model is significant and three of the predictor variables (employer responsibility, worthwhileness, self-efficacy) and four control variables (Black, Faculty, marital status, and medical diagnosis count) have significant independent relationships with LTC insurance purchase, two of them (self-efficacy and worthwhileness) in support of the hypotheses (H3.1). The hypothesis about individual responsibility (H3:2) was not supported. However, individuals with a belief in a higher level of employer responsibility have an odds of LTC insurance purchase of 1.07. Individuals with a higher score on planning worthwhileness have an odds of LTC insurance purchase of .94. However higher scores of planning worthwhileness demonstrate lower perceived worthwhileness of planning. Thus, individuals who believe planning to have a greater worthwhileness have an odds of LTCI purchase of 1.06. Individuals with a higher score on self-efficacy have an odds of LTCI purchase of 1.22. Black individuals' odds of LTCI purchase are 1.70 compared to Whites. Faculty odds of LTCI purchase are 0.65 compared to Administrative/Professional staff. Married individuals odds of purchase are .70 compared to non-married individuals. Individuals with a higher medical diagnoses count

have an odds of LTCI purchase of 1.17. Adding the research variables (worthwhileness and self-efficacy) to the baseline model, in Model2, helped explain a small portion of the effects of Black, experience-self, income, marital status, LTC knowledge, and faculty on LTCI purchase, and contributed to the overall effect on LTCI purchase. The other research variables – awareness/avoidance, subjective norms, control-self -- failed to contribute to the model. Lastly, the location of responsibility (LOR) factors in Model3 did not add to the overall effect on LTCI purchase, with only employer responsibility having a significant individual relationship. However, employer responsibility in part explains the effect of being Black and the effect of prior LTC experience-self on purchase. The addition of the LOR variables (employer responsibility), in Model3, did cause faculty and marital status to become significant again and strengthened the effect of medical diagnoses and self-efficacy.

IV.5. Summary of Key Findings

This study has three study aims. The first study aim is to *describe* the LTC planning behavior among baby boom aged adults in terms of individuals' "extent of LTC planning" (gathering information, making decisions, concretizing), LTC specific savings, and LTC insurance purchase. The second aim is to examine baby-boom aged adults' views on whose responsibility is the planning/provision/cost of location of responsibility (LOR). The third study aim is to examine the influence of potential predictors of individuals' LTC planning behavior with specific focus on the influence of LOR. The first two objectives seek to determine the current level of planning by Baby Boom aged

employees, including uptake rates of an employer offered LTC insurance benefit, and to gauge their perspectives regarding planning responsibility. The third aim seeks to add to the existing body of research with regard to potential LTC planning predictive factors, specifically, the extent to which LOR plays a role. Results from this last aim can provide useful insight to practitioners, employers, and policy-makers alike.

Aim One: LTC Planning Behavior - Descriptive. This study found *almost three-quarters of respondents scored at or below the halfway mark for "extent of LTC planning* (range: 20 to 100, higher scores indicating more planning; midpoint 50)." The Faculty job category has the highest average extent of planning score (51.37), compared to Admin/Exec/Other Professional (50.66) and Non-Professional (48.50). Age, income, marital status, female gender, LTC knowledge, LTC experience-other, and LTC experience-self have positive bivariate relationships with "extent of LTC planning" as predicted (H1.1). Being Hispanic is negatively associated with "extent of LTC planning" at the bivariate level. The study found *that less than one third of respondents are saving specifically with LTC in mind*. The Faculty job category has the highest percentage (37%) of individuals reporting LTC specific savings, compared to the Admin/Exec/Other Professional (30 %) and (30 %) categories. Both marital status and income have a positive bivariate association with LTC saving as predicted (H1.2); gender, age, and education, however, do not. LTC knowledge and prior LTC experience-other (non-hypothesized control variables) both also have positive bivariate relationships with LTC specific savings. *Over one third of baby-boom employees are purchasing the employee*

offered LTCI benefit. Another 6 percent are purchasing LTCI on the open market or through a spouse. The Non-Professionals have the highest percentage (42 %) of purchasers, compared to Admin/Exec/Other Professionals (41 %) and Faculty (33 %). For the employer-offered LTCI rate, the difference between the Faculty and both other groups is significant. Being White has a negative relationship with LTCI purchase, while being Black, vulnerability (chronic medical condition and IADL limitation), LTC knowledge, and prior LTC experience-self all also have a positive association.

Aim Two: Location of Responsibility – Descriptive. The study then examined baby boom aged individuals' beliefs regarding LTC planning responsibility (LOR) and found that, on average, they believe *individuals* have the greatest responsibility for LTC planning/provision/cost, followed, in order, by government, adult children, and employers. As predicted (H2.1), Hispanics are more likely to view the government as having greater responsibility for LTC. Hispanics also believe employers have a high level of responsibility and individuals have a lower level of responsibility. Whites are less likely to believe government or employers have a higher level of responsibility. Other correlates of LOR include: income (positive), education (positive), prior experience (self and other; positive), and IADL limitations (positive) all have relationships with individual responsibility; age (negative), LTC knowledge (positive), and IADL limitations (negative) with adult child responsibility; female (positive) with government responsibility; and age (positive), income (negative), education (negative), and female (positive) with employer responsibility.

Aim Three: LTC Planning Behavior Predictors – Explanatory. Next, the study identified predictive factors of LTC planning behavior. The study found three research variables (individual responsibility, awareness, avoidance) to be associated with baby boom individuals' "extent of planning" scores; two of which (awareness, avoidance) support the hypotheses (H3.1). An additional six control variables (income, experience-self, experience-other, LTC knowledge, female gender, and Hispanic) also predict extent of planning. Awareness, income, LTC knowledge, experience-self and -other, and female gender all have a direct relationship with extent of planning. Individual responsibility, avoidance, and Hispanic have an inverse relationship with extent of planning. Six research variables were found to be associated with LTC-specific savings: employer responsibility, government responsibility, awareness, worthwhileness, subjective norm, and self-efficacy; four of them (awareness, worthwhileness, subjective norm, and self-efficacy) in support of the hypotheses (H3.1). An additional three control variables (income, experience-other, and LTC knowledge) also predict LTC-specific savings. Higher levels of employer responsibility, awareness, worthwhileness, subjective norm, self-efficacy, LTC knowledge, income, and experience-other increase the likelihood of LTC-specific savings. Higher levels of government responsibility decrease the likelihood of LTC-specific savings. Three research variables (employer responsibility, self-efficacy, and worthwhileness) are associated with LTCI purchase; two of them (self-efficacy and worthwhileness) in support of the hypotheses (H3.1). An additional four control variables (marital status, Black, faculty, and medical diagnoses count) also predict LTCI

purchase. Higher levels of employer responsibility, worthwhileness, self-efficacy, medical diagnoses count, and being Black all increase the likelihood of having purchased LTCI. Being married and being in the faculty job category decrease the likelihood of having purchased LTCI.

V. DISCUSSION

This chapter addresses the key findings and related issues as they pertain to the three study aims and to the theoretical model. This chapter also presents micro and macro level study implications. And lastly, a discussion of the study limitations and directions for future research are presented.

The principal goal of this study is to contribute to the overall body of knowledge about factors influencing LTC planning behavior and how, if at all, it is influenced by individuals' views on whose responsibility is planning/provision/cost of LTC. A comprehensive review of the literature elucidated the lack of planning for potential long term care needs on the part of most Americans nearing older adulthood as well as how little is known about what predicts planning when it does occur. Additionally, the review of previous works highlights the complexities inherent in attempting to define, measure, and understand what constitutes long-term care and what constitutes long-term care planning behavior. As discussed in Chapter 1 of this report, for instance, there remains disagreement as to whether or not and for whom LTC insurance purchase is a rational planning choice. This complexity is evident in the mixed findings of this study, some in support of the theoretical framework, some that add questions, and some that are simply perplexing.

For the purpose of this study, to examine potential predictive factors, the Long-Term Care Planning Model was developed. This model identifies a set of control

variables (demographic, resource, and vulnerability factors), a set of research variables (recognition/appraisal, aka, awareness, worthwhileness belief, subjective norm, and control beliefs), and lastly, the primary research variable (LOR).This study is unique in that no other study has sought to investigate the association between planning behavior and location of responsibility for LTC planning. Nor has any previous known study investigated LTC planning behavior of university employees by job category. To reach its goals, the study addressed three study aims the findings for which are discussed below.

A mixed modes survey methodology was employed utilizing an 80-item survey which yielded a successful response rate of 58 percent, 1,166 baby boomers (after accounting for caseloss, the response rate was effectively 53 percent with 1,066 respondents).

V.1. Who is Planning and How Much?

The first study aim was to determine to what extent baby boom aged employees are or *are not* planning for their own potential LTC needs. Using descriptive and bivariate analyses, as well as analysis of variance (ANOVA), this study examined baby boom aged individuals LTC planning behavior, in terms of, their "extent of planning" score, LTC specific savings, and LTC insurance purchase. The distribution of each dependent variable as well as each variables singular relationship with each control variable (resources, vulnerability, demographic) was determined. Consistent with previous research (KFF, 2006; NASI, 2005; Pinquart & Sorensen, 2002, Sorensen & Pinquart, 2000a; Sorensen & Zarit, 1996), ***individuals were found to have generally low***

levels of LTC planning. Specifically, this low level of LTC planning was evident primarily for two of the three dependent variables: 1) *almost three-quarters of respondents scored at or below the midpoint for* ***"extent of LTC planning"*** *scale* (range: 20 to 100, midpoint 60; higher scores indicating more planning); and 2) *less than one third of respondents are* ***saving specifically with LTC i****n mind*. For the third dependent variable, LTCI purchase, the finding was more impressive with *more than one third of respondents purchasing the employee offered LTC insurance benefit*. On a grand scale this figure may seem low, but within the context of national coverage rates, this is a notable rate of purchase

V.1.1. Extent of Planning

This study found the average total score for extent of planning (and the average of each of the subscales -- gathering information, making decisions, concretizing plans) is below the respective scale midpoint. In general, the finding of a low extent of planning is consistent with previous studies exploring older adults engagement in care planning behaviors (Sorensen & Pinquart, 2000a, 2000c; Sorensen & Zarit, 1996). This finding is actually lower than that indicated in previous studies using the PFCN scales; however, earlier studies utilized older respondents (64 and older; Sorensen & Pinquart, 2001) and age has been positively correlated with planning (ibid). Faculty have the highest "extent of planning" score on average, with Non-Professionals having the lowest, and Admin/Executive/Other Professionals in the middle. Blacks, then Whites, have a higher extent of planning score on average than Hispanics. Women on average

have a significantly higher extent of planning score than did men. The female gender finding is consistent with prior research, however, the race/ethnicity finding differs. Again, however, key previous research was conducted with elderly individuals (65 and older) and thus unlikely to be employer-connected.

V.1.2. LTC Savings

This study found that less than one third of respondents are saving specifically with LTC in mind. This finding is despite almost two-thirds reporting being worried about paying for LTC services (62 percent agreed somewhat or completely that they "won't be able to pay for long-term care services for myself or spouse/partner"). The finding is not surprising, however, as the existing research in the area of *general* retirement savings finds that individuals are arriving at retirement with little general wealth accumulation (Lusardi, 2003; EBRI, 2006). Faculty have the highest percentage (37 %) of individuals reporting LTC specific savings, compared to Admin/Exec/Other Professional (30 %) and Non-Professional (30 %). It is notable that the latter two categories are the same on savings despite significant differences in income (Admin/Exec/Other Professional mean income in the $75,000 to $99,999 range and Non-Professional mean income in the $60,000 to $74,999 range) and education (A/E/OP mean education level = 16 years; NP mean education level = 14 years). Blacks (35 %), then Hispanics (34 %), have a higher percentage of individuals reporting LTC specific savings, than do Whites (31 %). A slightly higher percentage of women (33 %) than men (32 %) reported saving specifically for LTC, but it was not a significant difference.

V.1.3. LTCI Purchase

This study found that *over one third of baby-boom employees are purchasing the employer offered LTC insurance benefit*. Another 6 percent are purchasing LTC insurance on the open market or through a spouse. Average participation rates for employer sponsored voluntary plans are between 3 and 8 percent, but can range from 3 to 50 percent, depending on factors such as employer contribution, marketing/outreach, plan design, and employee characteristics (Tell, 2011). For instance, the federal LTCI plan only has a coverage rate of 5 percent (American Academy of Actuaries, 2009; Note: this plan is only this year about to have its first open enrollment since inception in 2002). The average for universities specifically is 7.8 percent (Ames, Breen, & Cheung, 2006). Previous reports suggest that among older adults, the national LTCI policy ownership rate is 10 to 16 percent (KFF, 2009; AHIP, 2007), with even smaller percentages among younger adults. As of May 2011, in the overall study population of benefit eligible baby boom-aged faculty/staff, 13 percent (761) are purchasing LTCI through the university (this population denominator includes all race/ethnicities). While 13 percent for the population is much lower than the 36 percent of the study sample, and likely represents non-response bias in the survey, it is still very high among university averages. Especially in light of the economic backdrop, this level of purchase is particularly meaningful.

Although employer-offered plans have seen a rise in enrollment since implementation of the federal LTC program for employees and retirees (KFF, 2009), with regard to take up rates, the take-up rate in this study is relatively high. Of the 6 to 7

million current LTCI policies, about two million were sold through employers or groups (ibid). The most surprising finding regarding LTCI purchase is that Non-Professionals have the highest percentage (42 %) of purchasers, with the next highest group the Admin/Exec/Other Professionals (41 %), and Faculty (33 %) having the lowest. Looking just at the UT employer-offered insurance, the difference between Faculty and the two other groups is statistically significant (27 % versus 39 % for Non-Professionals and 37 % Admin/Exec/Other Professional). This is despite the trend among most current purchasers who tend to have higher incomes and higher education levels (AHIP, 2007). Blacks (54 %), then Hispanics (43 %), have a higher percentage of individuals reporting LTCI purchase, than do Whites (37 %). A higher percentage of women (38 %) reported LTCI purchase then did men (42 %), but the difference was not significant. Purchasers and non-purchasers differed significantly on vulnerability (medical diagnosis count and IADL limitations), with purchasers having higher IADL limitations and higher medical diagnosis counts on average.

V.2. Long-Term Care Responsibility

The second aim of this study was to examine baby-boom aged adults' views on whose responsibility is the planning/provision/cost of location of responsibility (LOR). Utilizing descriptive and bivariate analyses, this study examined the distribution of the LOR variables and their relationship (at the aggregate and singular levels) with the resource, vulnerability, and demographic, or control, variables. Findings indicate, on average, boomers believe *individuals* have the greatest responsibility for LTC

planning/provision/cost, followed, in order, by government, adult children, and employer. This finding is consistent with a recent report of a 15 year study (AHIP, 2007) in which a consensus agreed that "individuals will have to assume greater responsibility for financing their LTC needs." Additionally, most did not believe "it is the responsibility of the federal government to pay for everyone's LTC needs without regard to personal resources."Looking at the LOR variables at the disaggregated level, individuals, then adult children are believed to have greatest responsibility for planning and providing/arranging for LTC, versus, individuals then government for paying for LTC.

This study's findings, in part, support the hypotheses that baby-boom aged adults with lower SES and/or who are non-White are more likely to believe the government to be responsible for the provision of LTC than their age peers with higher SES and/or who are White. The study finding for Hispanics, but not Blacks, versus Whites, was as predicted: Hispanics are more likely to view the government to have greater responsibility for LTC. Hispanics also believe employers to have greater responsibility and individuals to have less responsibility. Whites are less likely to believe government or employers have greater responsibility. This finding for Hispanics' but not Blacks' view of government responsibility as high is perplexing as the hypothesis was based on a previous finding (NASI, 2005) regarding Blacks and generalized to Non-Whites (in this study Blacks and Hispanics). While there is no significant finding between SES and government responsibility as predicted, there is a significant (positive) relationship between SES (both income and education) and individual responsibility.

Individuals with higher education and/or higher income believe individuals to have greater responsibility for LTC. SES (both income and education) is negatively associated with employer responsibility.

Females are also more likely to believe employers and the government have greater responsibility. Interestingly, individuals with LTC experience with someone other than themselves are more likely to believe individuals have a higher level of responsibility, while individuals with LTC experience for themselves and those with IADL limitations are less likely to believe individuals have a higher level of responsibility. These individuals may view themselves as less capable due to limitations. Older individuals are less likely to view adult children as responsible but more likely to view employers as having higher level of responsibility (a possible reflection of the former convention in which employers "took care of" their employees in retirement – through pensions, etc.). Individuals with LTC knowledge are more likely to view adult children with responsibility (possibly have greater knowledge due to experience with own parents).

V.3. Predictive Factors of LTC Planning

The third aim of this study was to examine the influence of potential *predictors* of individuals' LTC planning behavior, with specific focus on the influence of LOR. To this end, dependent on the level of measurement of the dependent variable, hierarchical OLS or logistic regression analysis was conducted. LTC planning, LTC savings, and LTC insurance purchase were each separately regressed on the following variables: block 1

(model A) -- control variables (resources – education, income, knowledge, prior experience; vulnerability – age, chronic illness, IADL limitations; and demographics – gender, race/ethnicity, marital status), and job category ; block 2(model B) -- research variables (minus LOR) -- awareness, worthwhileness, family members' views (subjective norm), self-efficacy and controllability (perceived control); and block 3 (model C) -- LOR variables.

V.3.1. Predicting Extent of Planning

Using hierarchical OLS regression, the final model is significant with three research variables (awareness, avoidance, and individual responsibility) and six control variables (income, experience-self, experience-other, LTC knowledge, female gender, Hispanic) found to have significant individual associations with extent of planning (R^2 = .40 for overall model). Confounding the prediction regarding the primary research variables (H3.2), individuals who believe in greater ***individual responsibility*** are more likely to have a *lower* "extent of planning" score (R^2 change = .01). Of the other research variables in the regression, ***awareness*** and ***avoidance*** effect planning in the predicted (H3.1) manner (R^2 change = .26). Consistent with previous findings (Pinquart, Sorensen, & Davey, 2003; Phipps, et, al, 2003; Sorensen & Pinquart, 2001), individuals with greater awareness are more likely to plan and those with greater planning avoidance are less likely to plan. Additionally, of the six control variables that are significant, female gender, income, prior experience, and LTC knowledge are consistent with previous findings with same or similar variables (NASI, 2005; Sorensen & Pinquart, 2000a; Malory,

et al, 1996; Pinquart & Sorensen, 2002, Sorensen & Pinquart, 2000a, 2000b). **Females**, individuals with higher **income** levels, individuals with prior **LTC experience** (self or other), and individuals reporting **LTC knowledge** are all more likely to have a higher "extent of planning." **Hispanics** are more likely than Whites to have a lower "extent of planning."

Thus, adding the research variables (awareness, avoidance, subjective norm, self-efficacy, control belief, worthwhileness) in model2 to the base model in this regression helped explain a portion of the effects of being female, income, prior LTC experience, and LTC knowledge on extent of planning, but all remained significant except for female. The effect of Hispanic was unchanged. Adding LOR variables in the final model (model3) explained only an additional 1.2 percent of the variance and very minimally explained the effects of experience-self and Hispanic, very minimally strengthened the effect of awareness, and strengthened the effect of female gender (by causing it to become significant again, .06*).

V.3.2. Predicting Long-Term Care Insurance Purchase

Using hierarchical logistic regression, the final model is significant with three research variables (self-efficacy, worthwhileness, and employer responsibility) and four control variables (Black, Faculty, marital status, medical diagnoses) found to have significant individual associations with LTC insurance purchase. For the primary research variables (LOR), only employer responsibility effected LTCI purchase. **The hypothesis about individual responsibility (H3:2) was not supported.** However, individuals with a

belief in a higher level of **employer responsibility** are more likely to purchase LTC insurance.

Regarding the other research variables, **self-efficacy and worthwhileness effect LTCI purchase in the predicted manner.** As predicted (H3:1), individuals with a higher level of self-efficacy and individuals with a higher level of planning worthwhileness are more likely to have purchased LTCI. In previous findings, low "usefulness of planning" similarly predicted a low level of "concrete LTC planning" (Sorensen & Pinquart, 2001). No known related studies exist regarding self-efficacy and LTCI purchase/concrete planning. Among the control variables with significant individual relationships in the model, individuals with a higher **medical diagnosis count** are more likely to purchase. Similarly, in prior studies, ADL limitations and expectation for care have been associated with "concreteness of planning (ibid)," but not LTCI purchase specifically. **Blacks** were also found to purchase at a significantly higher rate (70 % higher) than Whites. This is a somewhat surprising finding, as in previous findings, Blacks were found to have a significantly lower mean score on concreteness of planning than Whites (ibid). This study does have, however, a higher average education level when compared to the general population, which could affect this finding. **Married** individuals and **Faculty** were found to be less likely to purchase LTCI. The married finding is not consistent with a recent study in which among those surveyed, 73 percent of purchasers versus 65 percent of non-purchasers were married (AHIP, 2007).

Adding the research variables (awareness, avoidance, subjective norm, self-efficacy, control belief, worthwhileness) in model2 to the base model in this regression helped explain a portion of the effects of income, LTC experience-self, LTC knowledge, marital status, Black, and Faculty on LTCI purchase; only LTC experience-self and Black remained significant. Medical condition count, however, became significant. Adding LOR variables in the final model (model3) helped explain a portion of the effects of LTC experience-self (which became insignificant) and Black. Additionally, marital status and Faculty both became significant again in their effects on LTCI purchase, and the effects of chronic medical conditions and self-efficacy increased very slightly. Worthwhileness remained unchanged.

V.3.3. Predicting Long-Term Care Specific Savings

Using hierarchical logistic regression, the final model is significant with six research variables (employer responsibility, government responsibility, awareness, worthwhileness, subjective norm, self-efficacy) and three control variables (income, LTC knowledge, experience-other) found to have significant individual associations with LTC-specific savings. With regard to the primary research variables (LOR), only employer responsibility and government responsibility effected LTCI purchase. **The hypothesis about individual responsibility (H3:2) was not supported.** Individuals who believe in greater **employer responsibility** have a 9 percent greater likelihood of LTC-specific savings, and those who believe in greater **government responsibility** are 9 percent less likely to have saved specifically with potential LTC needs in mind.

Among the other research variables, four (awareness, worthwhileness, subjective norm, and self-efficacy) effect LTC savings in the predicted (H3.1) manner: individuals with a higher level of LTC **awareness**, those viewing planning as having greater ***worthwhileness***, those whose important family members view planning as important (***subjective norm***), and those who are confident in their ability to plan (***self-efficacy***) are more likely to have saved specifically for potential LTC need. The awareness finding is consistent with previous studies (Pinquart, Sorensen, & Davey, 2003; Phipps, et, al, 2003; Sorensen & Pinquart, 2001). It is unclear why avoidance was not significant. For the control variables found to have significant individual relationships with LTC savings, income, LTC knowledge, and LTC experience-other all have positive individual relationships.

In a recent retirement readiness report (Vanderhei & Copeland, 2010), findings project that nearly one half of the oldest baby boomers are "'at risk' of not having sufficient retirement resources to pay for 'basic' retirement expenditures and uninsured health care costs," with lower income groups being at highest risk. If this is the savings level for "general" savings, it can be deduced that individuals are at even greater risk of inadequate resources for non-covered LTC expenses. Within this context however, a finding of almost one third of respondents reporting saving with LTC in mind seems high. There is no available comparable data regarding LTC specific savings within large employers for placing these findings within context.

In this same retirement readiness report, 54 percent were found to have assets and investments (excluding primary residence) at less than $25,000 (27 percent of these with less than $1,000). Only 46 percent in the study reported not being confident that they will have enough money to live comfortably in retirement. These findings demonstrate a serious disconnect between level of resources needed for retirement and savings/planning.

Adding the research variables in Model 2 accounted for a portion of the effects of LTC experience-other, LTC knowledge effects, and a very small amount of the effect of income on LTC specific savings. Adding the LOR factors in Model 3 did not substantially account for effects of the Model one or Model two factors. A few (income, LTC knowledge, subjective norm) increased very slightly. Awareness, however, became significant with the addition of the LOR variables. LTC experience-other, self-efficacy and worthwhileness remained unchanged.

V.3.4. Findings Discussion Summary

Employed baby boom aged individuals have low levels of LTC planning in terms of gathering, deciding, and "concretizing" plans. They also have overall low levels of LTC specific savings. Over one third, however, are purchasing LTCI either through the employer offered plan or through another offering, but this number too can be improved, especially among faculty who have the lowest rate of purchase. Interestingly, individuals do believe themselves to have a high level of LTC planning responsibility, in terms of planning, arranging/providing, and paying for LTC.

So, although individuals believe themselves to have a high level of responsibility for LTC, there appears to be a disconnect when it comes to following through with planning. What is behind the lack of follow-through? Evidence from this study demonstrates that increasing individual's awareness of potential LTC needs can have significant effects on planning both in terms of gathering, deciding, concretizing, and on saving. Additionally enhancing individuals' self-efficacy (confidence in their ability to plan) and their belief in the worthwhileness of planning can have significant effects on planning in terms of savings and LTCI purchase. And lastly, enhancing individual's belief in employer responsibility can increase LTC planning in terms of savings and LTCI purchase. See implications section below for further discussion of this finding.

With regard to predictor variables, no one variable predicted all three dependent variables. The predictor variables, as they occur in The Long-Term Care Planning Model, and their respective significance/non-significance in relation to each dependent variable are indicated below in Table V.1.

Table V.1. LTCP Model Variables and Significance

Independent Variable	**LTC Dependent Variable**		
	Extent of Planning	**LTC Specific Savings**	**LTCI Purchase**
LOR			
Individual	√-		
Adult Child(ren)			
Employer		√	√
Government		√-	
Research			
Recognition/Appraisal			
Awareness	√ *	√ *	
Avoidance	√- *		
Subjective Norm		√ *	
Perceived Control Belief			
Self-Efficacy		√ *	√ *
Control-Self			
Planning Belief			
Worthwhileness		√ *	√ *
Control			
Resource			
Education			
Income	√	√	
Experience-self	√		
Experience-other	√	√	
LTC Knowledge	√	√	
Demographic			
Gender (Female)	√		
Mar. Stat. (Marr.)			√-
Black			√
Hispanic	√-		
Faculty			√-
Non-Professional			
Vulnerability			
Age			
Medical Diagnoses			√
IADL Limitations			

V.3.5. Theory and Findings

While in some respects the LTCP Model is supported by findings with each of the separate dependent variables, no one variable predicted all three LTC planning measures; and no one LTC measure had all components of the model supported among its significant findings. To review, the Long-Term Care Planning (LTCP) model, developed as the theoretical framework for this analysis from the theories of proactive coping and planned behavior, offered that the three measures of planning (extent of planning, LTC specific savings, and LTCI purchase) could be predicted by knowing individual's *beliefs about planning* (awareness, worthwhileness, and location of responsibility), the *subjective norm* belief, the *perceived control* beliefs (self-efficacy and control belief), as well as *"actual behavioral control"* factors (*resources*). In addition to these beliefs and resources, the LTCP model added perceived *vulnerability* to the theoretical framework, hypothesizing that individuals with a higher number of chronic conditions, IADL limitations, and who are older would be more likely to engage in LTC planning behaviors, as this had been suggested in previous studies (Pinquart & Sorensen, 2002; Sorensen & Pinquart, 2000a, 2000b, 2001; NASI, 2005). Several *demographic* variables (gender, marital status, race/ethnicity), suggested by prior research (Lusardi, 2003; NASI, 2005; Sorensen & Pinquart, 2000a), were also included in the model.

In the *theory of planned behavior*, and thus, in the LTCP Model, it is understood that knowing an individual's beliefs about a behavior helps to predict an individual's intentions to perform the behavior, and in turn, the actual behavior. *Location of*

responsibility (LOR) was theorized to be a belief about the planning behavior that would be associated with LTC planning. Individual responsibility, in particular, was hypothesized to be positively associated with planning behaviors. It was the only significant finding among the LOR variables with the LTC measure *extent of planning*, yet, it has a negative association (albeit small) – a perplexing finding. For *LTC specific savings* and *LTCI purchase, employer responsibility* was positively associated; and *government responsibility* negatively associated with LTC specific savings. For the employer responsibility association, it is difficult to get much beyond the association, as it difficult to assuage which would precede the other – the LTC-specific savings/LTCI purchase (employer offerings) or the belief in employer responsibility.

Another belief about planning variable, *awareness* (belief about potential need for and importance of LTC), *was* found to be in support of the model – higher levels of awareness predicting higher levels of *extent of planning* and greater likelihood of *LTC specific savings.* The planning belief, *worthwhileness*, also predicted planning in support of the model with higher levels of worthwhileness belief being associated with a greater likelihood of both *LTC specific savings* and LTCI *purchase*. The perceived control belief, *self-efficacy*, had similar findings in support of the model, with higher levels of self-efficacy being associated with a greater likelihood of having *LTC specific savings* and/or having purchased *LTCI*. The perceived control belief, *control-belief*, assessing whether or not the individual believes him/herself to be in control of performing planning behaviors, was not found in support of the model having no significant associations with

the LTC planning measures. The *subjective norm* belief predicted only *LTC specific savings* with higher levels of subjective norm associated with a greater likelihood of savings.

In the theory of planned behavior, and the LTCP Model, the resource variables (income, education, LTC experience, LTC knowledge) affect "actual behavioral control" which influences both perceived control (confidence and beliefs about ability to perform behavior) and the actual behavior. This study found *income, LTC experience* (self and other), and *LTC knowledge* resource variables to have positive associations with *extent of planning*, and thus to support the model*. Income, LTC experience-other,* and *LTC knowledge* also all have a positive association with *LTC-specific savings*, but no resource variables predict LTCI purchase. For the model's vulnerability variables (age, chronic conditions, IADL limitations), only chronic conditions predicted LTC planning, and only for the LTCI purchase measure, with increased chronic conditions being associated with an increased likelihood of LTCI purchase. Among the demographic variables, females were more likely to have a higher extent of planning as in other studies (Sorensen & Pinquart, 2000a); however Blacks were more likely to have purchased LTCI than Whites, contrary to previous findings (NASI, 2005). Additionally, Hispanics less likely to have planned in terms of "extent of planning," and married individuals and faculty less likely to have purchased LTCI.

So, for the LTC planning measure extent of planning, resources (actual control) – income, knowledge, experience – and awareness (belief in planning importance/need)

were in support of the model, but other beliefs (worthwhileness, subjective norm, and perceived control) and vulnerability were not in support of the model. Thus, awareness of the importance of LTC planning and potential need for it and having "actual control" (resources) predicts "extent of planning" in accordance with the model. For the LTC planning measure LTC-specific savings, belief in employer responsibility, awareness, and worthwhileness of planning, subjective norm, self-efficacy, and resources (income, LTC experience-other, LTC knowledge) were in support of the model, but other beliefs (individual responsibility, control self) and vulnerability were not. Thus, for LTC-specific savings, belief in employer responsibility, awareness of need/importance of planning, belief in the worthwhileness of planning, perception of planning as important to family members (subjective norm), belief in ability to perform planning tasks (self-efficacy), and actual control (resources) predicts LTC-specific savings in accordance with the model. Lastly, for the LTC planning measure LTCI purchase, belief in employer responsibility, worthwhileness, perceived control belief (self-efficacy), and vulnerability (chronic conditions), but no resource variables, were in support of the model. In other words, if an individual believes LTCI to be worthwhile (worthy of the expense?), perceives her/himself competent to perform the behavior (understand the ins and outs of LTCI), and/or feels vulnerable to potentially needing the LTCI due to chronic conditions, s/he is more likely to plan. Additionally, belief in employer responsibility or simply having the employer-offered LTCI may be important.

The variety in these findings underscores the previous discussion regarding the complexities inherent in studying this content area. It also highlights the need for these different mechanisms of planning – savings, LTCI purchase, and planning in terms of gathering, deciding, concretizing (extent of planning) -- to be examined separately, each having its own set of potential predictors and complicating factors. Findings from this study do not fully support the model, but broken down by LTC planning measure (dependent variable), can lend some general support. Primarily, it reinforces the notion that measuring and understanding LTC planning behavior is complex.

For LTCI purchase specifically, the findings only minimally supported the model. Most notably, education, income, LTC knowledge, LTC experience, i.e., resources, had no significant association with purchase. Interestingly, descriptively speaking, the non-professional staff had the highest percentage of individuals who purchased LTCI, and, incidentally, the largest percentage who believed employers have a high level of responsibility for planning. In the multivariate regression however, controlling for income and education, it is the faculty who have the significant finding, albeit in the negative direction, with LTCI purchase. It seems, therefore, that there remain a number of unaccounted-for factors influencing the complex process/decision of LTCI purchase.

V.4. Implications

Most people are not planning for their own potential LTC needs; most are not even aware of the need for planning or of financial planning options. Personal planning shortcomings are coupled with negative public revenue collections, gross budget

shortfalls, and employer benefit package crises. The Center on Budget and Policy Priorities reports at least 21 states have already cut or are considering cuts to medical, long-term care, or other services for the elderly and disabled (Oliff & Koulish, 2009). Findings from this study suggest that the approach to increasing LTC preparedness through the encouragement of LTC planning may be more achievable through a multi-pronged approach. Due to individual/family, employer, and government budget tightening, planning has become even more important. No one of these entities can adequately address planning independently. The study findings suggest implications at the individual and family level as well as at the policy-maker and employer levels. Implications exist at each of these levels as they pertain to study findings regarding location of responsibility and LTC planning predictors discussed below.

V.4.1. Location of Responsibility

Individual Responsibility. Based on study results, it is suggested that individuals may be receptive to increased LTC planning efforts. One of the most important findings of the study is the high level of belief that *individuals* should be responsible for LTC planning/provision/cost, more so than adult children, employers, or government. Other research supports this finding, suggesting that most individuals believe that the federal government should not pay for LTC needs of everyone without regard to personal resources, but rather that individuals need to assume greater responsibility for their own LTC needs (AHIP, 2007). As indicated in the survey instrument, planning/providing/ arranging/paying at the individual level takes the form of gathering information,

discussing options with family, making decisions about options, saving for LTC needs, purchasing LTCI, making arrangements and/or paying for one's own LTC at home or elsewhere. Yet, many individuals feel incapable of carrying out planning efforts on their own (Curry, et al, 2009;).

Employer (Trust) Responsibility. Fostering trust in the employer as a planning agent (researching plans, handling the administration, etc.) and educating individuals regarding the shared role of the employer in LTC responsibility may be a successful means to increasing take-up rates of employer offerings, and thus, increase LTC planning. Previous research suggests there is an "increasing convergence between retirement planning and long term care planning at the workplace (Silva, 2003)." Currently large employers account for over 35 percent of the existing LTCI policies and enjoy consistent growth in the market (Tell, 2011). Employers as traditional providers of benefits are well-positioned to educate and influence employees regarding retirement planning, and specifically, long-term care planning. Other research also suggests that those who are non-purchasers of LTCI are interested in unbiased sources (not insurance companies and agents) of information about LTCI; additionally, they feel overwhelmed, inadequately informed, and incapable of making the right decision about LTCI (Curry, et al, 2009). Employers have the added benefit of economies of scale allowing them to reach more people and negotiate better contracts (ibid). This study indicates that individuals who believe employers have a high level of responsibility for LTC may be more likely to purchase LTCI and to save specifically with LTC in mind. Thus, efforts to

increase understanding and belief in the importance of the role of the employer in planning, and the planning advantages/opportunities afforded the employer, especially large employers, could result in increased concrete planning behavior, i.e., LTCI purchase and LTC specific savings.

Particularly important here is that the job category with the highest level of belief in employer responsibility was the Non-Professional group, which also had the highest proportion of LTCI purchasers (significantly higher than faculty), the second highest proportion of LTC specific savers, and yet, the lowest (significantly) scores on self-efficacy and control belief. It could be that "employer responsibility" is a substitute for, or is at least highly correlated with, trust in employer. It is interesting that this group also has the lowest proportion who believe individuals have a high level of responsibility. It appears that they are not abdicating their financial responsibility (as they are contributing the money), but simply, relying on (trusting) the employer to have done the background work in developing the LTCI plan, and to have set up a reliable investment infrastructure.

Government Responsibility. In this study, the second highest score with regard to responsibility was government. This high level of belief in government responsibility might make a reduction in the government role in LTC a political unlikelihood, despite the plans of many state and federal leaders to do so. Policy-makers should be aware that even in these budget sensitive times there may be little public palette for policies constraining the government role in LTC. In fact, many believe that it is the

government's responsibility to offer a government sponsor LTCI plan (AHIP, 2007), and thus, efforts by conservative congressmen to dismantle the newly passed and currently in design phase CLASS program establishing an affordable public LTCI option may be poorly received.

Shared Responsibility. Results suggest that LTC planning on a multi-pronged front is indicated. Findings regarding LOR show while baby boomers view individuals as having the highest level of responsibility, they also view other entities – adult children, employers, and government – as having from just above a moderate level of responsibility to a great deal of responsibility for LTC planning/provision/cost. Thus, individuals may favor a planning approach that focuses on shared responsibility.

Practice Implication:

Practitioners (e.g, social workers and other LTC counselors) need to be aware that most individuals feel that they have a good deal of responsibility for their own LTC planning. Practitioners working with baby-boom aged adults and older adults should be trained to assist these individuals in their long-term care planning efforts. Such training should include not only basic information and referral skills, but also knowledge and skills regarding adequate levels of general financial planning, long-term care financing options, advanced directives, and guided family discussions regarding likely needs/options/finances. Individuals should also be educated about the ways in which LTC is a shared burden and the role each entity plays in planning/provision/cost of LTC. Individuals in Non-Professional jobs are less likely to believe individuals have a high level

of responsibility for LTC and have a higher level of planning avoidance, compared to Faculty and Admin/Exec/Other Professionals. This group may require targeted education regarding the need for planning at the individual/family level. Interestingly, this group on average also had the highest level of LTC awareness and belief in the worthwhileness of planning.

Employer Implication:

Employers may simply need to be aware of the overall landscape of LTC and planning importance. The LTC plan sponsorship rate among U.S. employers is less than half a percent. Lack of awareness and low priority is cited as primary reasons for non-sponsorship by employers (EBRI, 2000). Employers should also be aware of employees' belief in individual responsibility for LTC planning. Employers seeking to enhance planning efforts (savings and LTCI purchase) among employees can capitalize on this by fostering employee efforts to engage in such planning, i.e. through comprehensive LTC educational outreach programs (beyond the scope of their own offerings). Given the present level of belief in individual responsibility, it could be the right time for large employers to explore use of "opt-out" plans versus "opt-in" plans or other more progressive policies.

Policy Implication:

Policy-makers would benefit from insight regarding individuals view on government responsibility as well as on individual responsibility as indicated in this

study. Policy-makers should consider further incentivizing planning at the individual level both for individuals who engage in LTC-specific savings plans and who purchase LTCI, but also for employers who provide LTC planning offerings. Currently, qualified LTCI premiums can meet medical expense tax deduction criteria at the federal level (AALTCI, 2011). A number of states offer similar deductions as well, and a smaller number offer tax credits. One study reported that the best way to increase LTCI purchase is through a government stop-loss program, in which the government continues to pay for LTC when benefits run out, as well as through improved tax deductability of premiums regardless of income level (AHIP, 2007). There is room for enhancement of such incentive programs at the individual and the employer levels.

V.4.2. LTC Planning Predictors

Planning Awareness/Avoidance. Two of the clearest indicators for higher levels of LTC planning are planning awareness/avoidance and LTC knowledge. Previous research has found that individuals with greater awareness of LTC and the need to plan are more likely to plan (Pinquart, Sorensen, & Davey, 2003). The findings for this study also support a positive association between awareness/avoidance, as well as LTC knowledge, and planning. Most people however are not aware of their own potential needs, of the need to plan, financing options for LTC, or even, what is or is not covered by Medicare (EBRI, 2000). Additionally, perceived need (awareness) has been viewed as a considerable hurdle to LTCI purchase (ibid). Findings from this study suggest that manipulating these two factors (awareness and knowledge) can have an impact on

planning in terms of gathering, deciding, and concretizing as well as on LTC specific savings.

Self-Efficacy. Confidence in one's ability to plan for one's own potential LTC needs is key to successful planning. This study demonstrated a clear relationship between self-efficacy and LTCI purchase and LTCI specific savings, arguably two of the more complex concrete planning steps. Early stages of LTC planning – information gathering – require less ability. However, for one to adequately engage in latter steps of planning – making decisions and taking concrete steps – one needs to have confidence in his or her ability to perform the requisite behaviors (Azjen, 2004 – manual). Increasing an individual's self-efficacy can thus increase the chance that he or she will perform planning behaviors.

Job Category. One of the most surprising predictors regarding LTCI purchase is the Faculty job category predicting non-purchase (35% less likely to purchase). As no known previous study has investigated LTCI purchase with regard to job category, it is difficult to situate this finding within the context of other works. It is even more perplexing given that income and education level were controlled for. Is this group overly analytical about the purchase? Are they putting off the decision so they can spend more time reviewing pros and cons? They are not, as a whole, more likely to be *saving* specifically with LTC in mind, so they are not planning in this other way instead. It is possible that these analytical thinkers are not sold on the benefits after conducting their own risk assessment. As discussed earlier, LTCI involves a series of complex

considerations. These individuals may not believe that the benefit of purchase outweighs the risk of overpaying, rate hikes, claim denial, longevity (survivability) of insurer, and of forgoing the money for premiums which could be otherwise invested.

Practice Implications:

Efforts to enhance awareness of the need to plan and LTC knowledge can be addressed on many fronts. Practitioners—primarily social workers, but also nursing staff—at physician offices, hospitals, emergency rooms, senior centers, and nursing/assisted living facilities should readily disseminate LTC planning related information and counsel not just to those who are 65 and older, but to those approaching retirement age, and especially those with chronic medical conditions and IADL limitations. As LTC experience for another is an obvious teaching tool, practitioners should take advantage of family members' encounters with health care settings as they accompany older adults in order to educate them regarding adequate and comprehensive LTC planning for themselves. Education efforts should not only focus on the need to plan through savings and through consideration of LTCI, but for those for whom finances prohibit such planning, education efforts should focus on planning through other means: gathering information, talking with family, planning ahead, and advanced directives. Incidentally, increasing awareness and knowledge will likely effect confidence (self-efficacy) in planning ability which in turn can affect LTCI purchase and savings; i.e., with know-how comes confidence.

Employers and Program Planner Implications:

Program planners, LTC providers, and employers alike should strive to stay abreast of national and state LTC system changes as well as broad educational campaigns (like the national Long-Term Care Campaign) in order to best educate and serve their consumers and employees, and effectively, themselves. Targeted education materials/campaigns might be needed for Hispanics, males, and individuals with low-income, all of whom this study found to be less likely to plan in terms of gathering, deciding, concretizing, which can be done by all regardless of income. Additionally, with regard to LTCI, targeted outreach to married individuals who this study shows to have significantly lower purchase rates, might be indicated. Efforts should stress the greater choice of options for care one is afforded through LTCI (may provide better ability to care for spouse at home). Lastly, faculty should be engaged to determine what is behind the low LTCI purchase within this group and what can be done to improve the purchase rate.

By addressing awareness/knowledge through the aforementioned education and outreach efforts, self-efficacy can similarly be addressed. Education and outreach is especially important as a component of employer offered LTC planning mechanisms. Employers have a unique opportunity and responsibility to utilize their position of interest and trust not to just provide offerings, but to educate individuals about the complexities of LTCI and savings opportunities.

Policy Implication:

Policy-makers have a long way to go to educate the public about the ins and outs of the current LTC system, LTC financing, and the shortcomings of the current public LTC system, but it must all start with increasing awareness of each person's own potential LTC needs and their need to participate in their own LTC planning in order to avert time-of-crisis decision-making. Efforts have been made through the recent national campaign (Long-Term Care Campaign) adopted in many states to get the word out about the need for planning, but more is needed and on many fronts. An appeal must be made about the urgency and with regard to the need for all individuals and family to share the burden of LTC planning with employers and with the government in order to plan effectively.

V.5. Study Limitations

This study has successfully contributed to the understanding of the LTC planning behavior among baby-boom aged adults. However, as with any study, it is not without limitations. These limitations are discussed in this section.

First, the study sample is not representative of all baby boom aged adults in the United States. This study, as discussed earlier in this report, takes advantage of a conveniently situated university population of employed baby-boom aged adults which limits generalizability in three primary ways: 1) only individuals with access to applicable employer benefits were included; 2) the survey was provided only in English and may not adequately represent responses of non-English speaking/reading individuals; and 3) the study sample was limited to Non-Hispanic Whites, Hispanics/Latinos, and African-

American/Blacks. However, two racial/ethnic groups were oversampled to attain adequate representation for each group. Additionally, data collection for this study took place in mid-to-late 2008 in the midst of an historic economic crisis in the U.S. Not all areas of the country however were equally affected, thus, economic effects on LTC planning in this study's geographic location might differ from those in other areas. [Note: corollary data was collected regarding change in individuals' planning behavior as it related to the economic changes, but was not analyzed for the purposes of this report]. Within these limitations however the study did achieve an adequate response rate and case loss was minimal, thus, the sampling error is thought to be minimal and the sample is thought to be representative of the study population: benefit-eligible UT at Austin faculty and staff who are African American, Hispanic, or non-Hispanic White. It is believed that findings from this study can have meaning to populations comparable regarding academic setting, size, benefit access, and human resource department outreach of employer as well as to other government and corporate populations with similar benefit structures. It is recommended that future study include additional ethnic groups (e.g., Asians) and address non-English speaking concerns through bilingual research materials. Additionally, further examination regarding LTC planning behavior among baby boom aged individuals who do not have access to employer offered planning benefits is also needed.

Second, this study succumbs to the primary limitation inherent in survey research - that of being cross-sectional in nature. As such, causal relationships cannot

be established among variables but are examined only in terms of correlations. Such as the case with the two variables LTC specific savings and employer responsibility and with LTCI purchase and employer responsibility. It is likely that the two variables influence each other. For example, if one believes employers to have a high level of LTC responsibility, then he/she may be more likely to participate in the employer benefit offering. But the reverse may be the case as well, if one participates in the employer offering he/she may be more likely to believe the employer to have higher LTC responsibility. A longitudinal study would help to discern if indeed belief in higher employer responsibility influences LTCI purchase and LTC savings, or the other way around.

Third, the survey methodology of the study can allow for error in two ways: 1) non-response bias and 2) self-report. All respondents were volunteers and thus some individuals selected for the sample chose not to participate. Due to this voluntary nature of participation those responding may differ on some key variable(s). For example, the proportion of the sample reporting LTCI purchase was higher than that of the study population (which included all race/ethnicity groups), and thus, those choosing to participate may represent persons more interested in the matter of planning and may be more aware of the issue in general. This may further limit the generalizability of the findings. However, while the sample as a whole had a high proportion of purchasers, planning remained low on the other two measures relevant to the study. Data for this study was collected solely through the self report of respondents. No corroborating data

was used. Without corroborating data, the possibility exists for recall concerns as well as social desirability, thus limiting reliability of responses. However research exists which demonstrates that outside of experimental studies, social desirability is less of a concern, especially with psychological constructs (big five personality traits, proactive personality, affectivity disposition, self-efficacy, goal orientations, etc.) and self-referential perceptions (Chan, 2009).

Fourth, the study made use of a number of items that were developed specifically for the purposes of this study. Most notable among them is the measure of location of responsibility (LOR), a key research variable in the study. As such, no prior reliability or norming testing has been conducted on this measure. This variable was used as the primary research variable in the study assessing individual's perceptions of who is responsible for the planning, provision, and cost of LTC – individuals, adult children, employers, and/or government. Each of the four responsibility factors had three items assessing responsibility for LTC planning, provision, and cost. Although, examples of each were given, individuals may have interpreted these items differently. Analyses were conducted at the aggregated item level as well as the singular item level. No appreciable difference was recognized at the singular level so aggregated variables were used. Reliability testing on each of the four responsibility factor scales ranged from. $\alpha = 0.80$ to $\alpha = 0.85$. The possibility exists that individuals' beliefs about who is responsible for LTC is not adequately assessed by the variable location of responsibility. Future studies might include a more proven estimate of LOR. Other measures developed

for this study include the items for the following: worry about how to pay for LTC, subjective norm, self-efficacy, and control-belief. The latter three items were developed in accordance with a manual for developing questionnaires based on the Theory of Planned Behavior (Francis, et al, 2004).

Lastly, this study did not make any attempt to capture personality type. Other studies have demonstrated that personality type may have some influence on planning (Sorensen, et al, 2010). Higher neuroticism, openness, and agreeableness are associated with higher levels of awareness of potential care needs; higher agreeableness is also associated with more information gathering and less avoidance (ibid). Future studies may want to include personality traits as well.

While regression analysis was appropriate for the purpose of this study: exploring relationships between LTC planning behavior and the various predictor variables, a large scale study utilizing SEM may provided clearer information. Any such study should include the LOR variable as well as appropriate personality trait variables and should investigate the interrelated nature of many of this study's variables.

V.6. Conclusion

The first aim of this study sought to determine what is the current status of LTC planning behaviors among employed baby-boom aged adults with regard to their extent of planning (gathering information, making decisions, and concretizing their plans), including LTC specific savings and LTCI purchase. The second two aims – determining what are baby-boom aged adults views on LOR for LTC planning and what are potential

predictors of LTC planning – sought to inform future efforts on the part of practitioners, employers, and policy-makers to address the problem at hand: a stretched LTC system (public, private, and family), crippled federal and state budgets, and a fast approaching wave of older Americans who will make unprecedented demands on the system.

Consistent with prior research in the area, this study found overall low levels of LTC planning; however, with regard to LTCI purchase, the participation rate is good relative to the national coverage rate, and it warrants further examination in order to ascertain what is working (e.g., is it Human Resource Department outreach efforts). The study informs us that baby-boom aged individuals as a whole believe themselves (individuals) to have a high level of responsibility for their own potential LTC needs. They also, however, believe that responsibility lies with the government, employers, and adult children as well. Consistent with hypotheses, LTC awareness/avoidance predicted a higher level of extent of planning (gathering, deciding, and concretizing); worthwhileness and self-efficacy predicted LTCI purchase; and awareness, subjective norm, worthwhileness, and self-efficacy predicted LTC specific savings. Additionally, individual responsibility (negatively), female (positively), income (positively), experience (self and other; positively), LTC knowledge (positively), and Hispanic (negatively) all predicted extent of planning. Employer responsibility (positively), faculty (negatively), marital status (married; negatively), Black (positively), and medical diagnoses all predicted LTCI purchase. And, employer responsibility (positively), government

responsibility (negatively), income (positively), and experience-other (positively) all predicted LTC-specific savings.

Study findings and implications for practitioners, employers, and policy-makers were presented and discussed. These findings elucidate the need for further examination in certain areas as discussed in the prior section of this report. Key among these findings is that while baby boomers express a belief in a high level of individual responsibility for LTC planning/provision/cost and they express worry about how they will pay for their own potential LTC, their planning efforts remain low (with the exception of the relative percentage of individuals purchasing LTCI). What accounts for the disconnect between LOR and planning? Is it lack of awareness of the need to plan and low confidence in one's ability to perform planning behaviors? Is maximizing educational and planning outreach efforts through the employer to increase awareness and boost confidence in planning ability part of the answer. According to AHIP (2007), LTCI purchasers are getting younger and more likely to be employed, thus increasing the opportunity to educate/plan through employers! The employer market has promise for planning in general but specifically for growth in LTCI purchase as this has been the area of coverage growth in recent years. Economies of scale can be exercised and outreach efforts maximized through use of employers as administrators and LTC educators. However, the Kaiser Family Foundation (2009) cautions that while this market has promise, product offerings should not be oversimplified in the name of affordability but at the cost of adequate underwriting and without inflation protections.

Utilizing employers as a primary LTC planning mechanism has the added benefit of addressing the need to provide a trusted agent in the role of the LTC educator and plan administrator. AHIP (2007) reports that employees want advice and guidance from their employers. It is possible that savings/purchasing through the employer is viewed as a safer alternative to that of the "open market," with the employer viewed as a stable and trustworthy means to saving. Employer agency in planning is increasing, and according to one report, is increasingly "necessary to help employees realize adequate income in retirement (Metlife, 2010)". This is no less true for *long-term care* planning.

Future study should address the measurement and methodological concerns of this study and should strive to include additional racial/ethnic groups and non-English speakers. Future research is needed to address several content areas. Within the context of this study, further exploration, possibly a focus study, is needed to probe into what accounts for the higher level of LTCI purchase. For instance, how does the level of outreach efforts, convenience, and/or trust of this employer compare with others? Probing is also needed to ascertain what is behind lower faculty purchase rates, higher Black purchase rates, lower Hispanic overall planning, and Hispanic belief in low individual responsibility and high government responsibility. In a broader context, continued study to determine primary cause for non-purchase of LTCI in general is needed. For instance, is the primary cause for non-purchase cost, lack of adequate/understandable information, or lack of a trusted source/agent. Additionally, examination into individual preference regarding employer tactics (e.g., opt-out policies)

and types of government incentives (deductions versus credits) is also needed. A large-scale examination among other large universities and employers comparing take-up rates, as well as addressing the above mentioned areas would yield very useful data.

It will be important to monitor the LTC related developments on the national front as well. When the federal government launched its LTCI plan in 2002, it changed the landscape of the LTCI market. Many states and large employers have used the federal plan as a benchmark for their own (Pfuntner & Dietz, 2004). Last year, one of the two LTCI companies in the federal plan pulled out, leaving only one insurer for that plan. This will likely have interesting effects, both for the federal plan recipients and for states who mimic the federal plan. It will be important to monitor the effects of this move on the LTCI market as a whole. Additionally, the Patient Protection and Affordable Care Act of 2010, which includes the CLASS program, is a political hot button at this time. It is unclear if it will survive the current political environment. Whether it does or does not will likely have significant implications for the LTCI market as well as the broader LTC system, and will thus, also need to be closely monitored. It has been predicted that this program could even stimulate the current private LTCI market, at least through supplemental or wrap-around offerings. Additionally, in its current form it uses an "opt-out" mechanism which would likely dramatically increase participation (AAHSA, 2009).

In closing, the need for protection against the financial, social, and health risks of potential long-term care needs is only going to grow. There are many indications that the government is positioning itself to rein in Medicare and Medicaid spending on LTC in

favor of individual responsibility. In light of the findings of this study that baby boomers believe in a high level of individual responsibility for LTC planning/provision/cost, as well as their evident belief in shared responsibility, previous research demonstrating the need for trusted sources of LTC planning information/agency, and benefits to be found by planning through larger employers, there appears to be an opportunity for growth in the individual planning arena, especially through LTCI coverage. With government incentivizing LTCI purchase (and other forms of planning) both at the employer level and at the individual level, increased LTC planning could occur with responsibility shared by all.

Appendix A: Theory of Proactive Coping

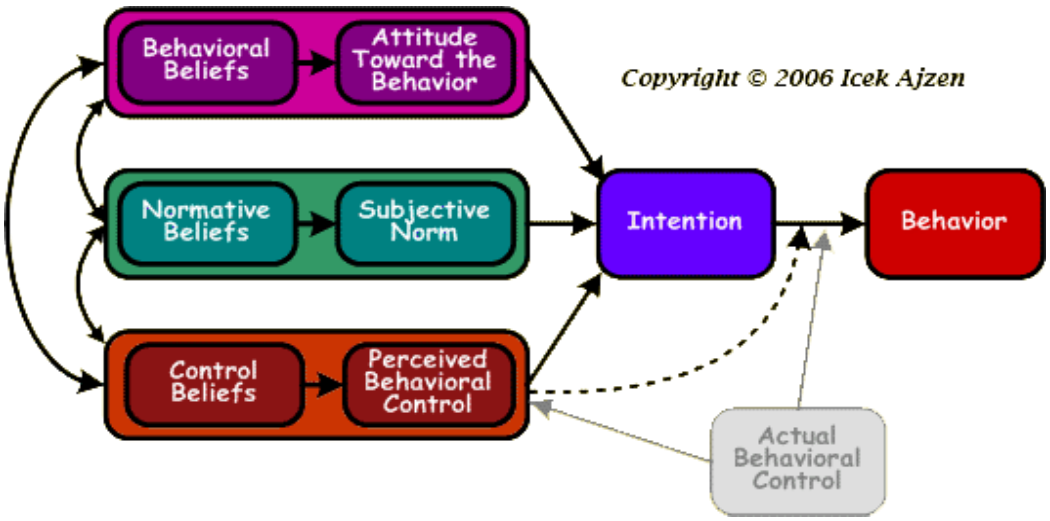
Theory of Proactive Coping

Stage One:	**Resource Accumulation** *Build reserve of temporal, financial, and social resources*
Stage Two:	**Attention Recognition** *Screen environment for danger*
Stage Three:	**Initial Appraisal** *What is it?* *What will it become?*
Stage Four:	**Preliminary Coping** *What can I do?*
Stage Five:	**Elicit and Use Feedback** *Has the event developed?* *Have preliminary effort had an effect?* *What has been learned about the potential stressor?*

Source: Aspinwall, L. & Taylor, S. (1997).

Appendix B: Theory of Planned Behavior (TpB)

Ajzen's Theory of Planned Behavior



Appendix C: Long-Term Care Planning (Survey) Instrument

LONG-TERM CARE

PLANNING SURVEY

-- To better understand long-term care experiences and behaviors

Please return your completed survey
in the enclosed envelope to:

Kristie Kimbell
School of Social Work
University of Texas
1925 San Jacinto Blvd
Austin, TX 78712

UNDERSTANDING LONG-TERM CARE PLANNING BEHAVIOR OF BABY-BOOM AGED ADULTS

DEFINITION:
For this survey, **"LONG-TERM CARE"** means care provided to an adult for at least three months. This care includes help with everyday things like bathing or dressing, cooking or taking medications, or help with nursing care such as checking blood pressure. Long-term care can be provided in a nursing home, in an assisted-living facility, in the community, or in a person's home by aides or family/friends.

SECTION ONE: PERSONAL EXPERIENCE

In this section, you will be asked several questions about your **OWN EXPERIENCE** with long-term care. In this section, you will also be asked several questions about your knowledge of long-term care costs and services, and about your own long-term care coverage, if you have any. Please follow the instructions for each question.

1. **Do you have any past or present experience arranging or receiving long-term care assistance for YOURSELF? (Check one box).**
   - ☐ No
   - ☐ Yes

2. **Do you have any past or present experience providing or arranging long-term care assistance for ANOTHER ADULT? (Check one box).**
   - ☐ No
   - ☐ Yes

   3. **If yes, who is/was it? (Check all that apply)**
      - ☐ Parent/Parent In-law
      - ☐ Child
      - ☐ Grandparent
      - ☐ SpouseClose friend/NeighborOther Relative
      - ☐ Other (please specify)

4. **What is your age (in years)?**

   _____

5. **What is the number of years of education you completed?**

   For example:
   8th grade = 8 years
   graduated High School = 12 years
   one year professional degree = 13 years
   college graduate = 16 years

   _____

6. **What is your job title? If you hold more than one position, list primary affiliation at the bottom.**

   - ☐ Executive/Administrative, and Managerial
   - ☐ Tenured Faculty
   - ☐ Tenure-Track Faculty
   - ☐ Clinical Faculty/Adjunct Faculty/Lecturer
   - ☐ Other Professional (Support/Service)
   - ☐ Clerical and Secretarial
   - ☐ Technical and Paraprofessional
   - ☐ Skilled Crafts
   - ☐ Service/Maintenance

   Primary Affiliation

   _____

7. **Which of the following do you think comes closest to the average national cost of a private room for one year in a Nursing Home if you paid for it yourself (out-of-pocket)? (Check one box)**

   - ☐ Less than $30,000
   - ☐ $30,000
   - ☐ $50,000
   - ☐ $70,000
   - ☐ $90,000
   - ☐ More than $90,000

8. **Which of the following government programs is the primary source of health insurance for LOW INCOME people who need nursing home care or care provided by a home health care agency over a long period of time? (Check one box)**

   - ☐ Medicare
   - ☐ Medicaid
   - ☐ Other Government Program
   - ☐ Don't Know

9. **I feel knowledgeable about the long-term care options and services available in my community. For example, nursing homes, home health agencies, adult day-care, Meals-on-Wheels. I would say I. . . (Check one box)**
   - ☐ Disagree completely
   - ☐ Disagree somewhat
   - ☐ Neither agree nor disagree
   - ☐ Agree somewhat
   - ☐ Agree completely

10. **True or False: Medicare covers long-term care services over a long period of time for beneficiaries. (Check one box)**
   - ☐ True
   - ☐ False
   - ☐ Don't Know

11. **Has a doctor or other healthcare professional ever told you that you had any of the following conditions? (Check the appropriate box for each, a-k).**

	YES	NO	Don't Know
a. Kidney disease			
b. Liver disease			
c. Emphysema/chronic bronchitis/ other lung problems			
d. Heart disease (Coronary heart disease, CHF, Angina.)			
e. Stroke			
f. Diabetes			
g. Cancer/malignant tumor (excluding minor skin cancer)			
h. Arthritis/Rheumatism			
i High blood Pressure			
j. Any emotional, nervous, or psychiatric problems			
k. Other (Specify)			

12. Because of a chronic (physical, mental, or emotional) condition lasting 6 months or more, do you have difficulty doing ANY of the following: learning, remembering, or concentrating; going outside your home to shop or visit a doctor; preparing meals; paying bills/managing bank account; taking medications; and/or walking 3 blocks. (Check one box)

- ☐ No
- ☐ Yes

Remember,
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SECTION TWO: ATTITUDES

In the following two subsections, we are interested in **YOUR OPINIONS**. Please follow the instructions given for each section or individual question. In this first subsection, you will be asked several questions regarding your opinion about the **ROLE AND RESPONSIBILITY of INDIVIDUALS** in planning for possible long-term care needs for themselves. Please indicate how much you agree with each statement by checking one box for each question 13 - 20.

13. Since I can't predict whether I will need care in the future, it's not worth making plans for that occasion.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

14. It is impossible to plan for future care—you must take life one day at a time.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

15. I can't plan for my future care when our society is changing all the time.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

16. I can't plan for my future need for help because I lack important resources (like finances, knowledge, available relatives).

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

17. Planning is not useful because other people can make better plans for my future care needs than I can myself.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

18. I do not want to plan for future care needs because I'd rather not think about negative things.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

19. If I worry about future care needs now I won't have enough energy to deal with the actual situation when it arises.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

20. Family members (for example, spouse/partner, children, parents, in-laws) who are important to me think that planning ahead for potential long-term care needs is important.

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

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*The growing number of elderly is creating a very large need for long-term care services in the United States. In this subsection, you will be asked several questions about the **ROLE AND RESPONSIBILITY of FAMILIES, EMPLOYERS, and GOVERNMENT, as well as INDIVIDUALS** in planning/providing/paying for long-term care.*

21. How much responsibility should each of the following entities have in *PLANNING* for such long-term care? (Please check one number 1-5 below for each item a – d).

EXAMPLES:

***Individuals*: gather information, discuss options, make decisions about potential LTC options for self; Purchase long-term care insurance; Save money for potential LTC needs**

***Adult Children*: assist with gathering information, discussing, decision-making regarding potential LTC options if needed**

***Employer*: offer a LTC insurance benefit for employees; offer savings options for employees; provide educational opportunities for individuals to learn about LTC needs/planning**

***Government:* educate individuals about potential LTC needs/options; make federal employee LTC insurance available for public purchase; offer tax incentives to individuals for LTC insurance purchase; offering tax incentives to employers for offering LTC insurance.**

How much responsibility?

A GREAT DEAL	**1----------**	**2----------**	**3----------**	**4----------**	**5 NOT AT ALL**
a) Individuals	1	2	3	4	5
b) Adult Children	1	2	3	4	5
c) Employers	1	2	3	4	5
d) Government	1	2	3	4	5

22. How much responsibility should each of the following entities have in *ARRANGING/PROVIDING* long-term care? (Please check one number 1-5 below for each item a-d).

EXAMPLES:

Individuals: **may make arrangement for own LTC at own home or elsewhere.**

Adult Children: **may assist with making arrangements for individual's LTC; may assist by providing all or part of LTC.**

Employer**: may assist with arrangements for individual's LTC through Human Resources department.**

Government: **provide regulation of LTC industry (nursing homes, assisted living facilities, home health care agencies); ensure adequate availability of LTC services.**

How much responsibility?

A GREAT DEAL	**1----------**	**2----------**	**3----------**	**4----------**	**5 NOT AT ALL**
a) Individuals	1	2	3	4	5
b) Adult Children	1	2	3	4	5
c) Employers	1	2	3	4	5
d) Government	1	2	3	4	5

23. How much responsibility should each of the following entities have in *PAYING* for long-term care? (Please check one number 1-5 below for each item a-d).

EXAMPLES:

Individuals: **pay for own care at own home or elsewhere.**

Adult Children: **pay or assist with paying for individual's LTC**

Employer: **pay for LTC insurance benefit for employees.**

Government: **Paying for LTC in individuals' homes or in facilities.**

How much responsibility?

A GREAT DEAL	**1----------**	**2----------**	**3----------**	**4----------**	**5 NOT AT ALL**
a) Individuals	1	2	3	4	5
b) Adult Children	1	2	3	4	5

c) Employers	1	2	3	4	5
d) Government	1	2	3	4	5

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SECTION THREE: YOUR NEED FOR LTC

In this section, you will be asked several questions about **YOUR POSSIBLE NEED for LONG-TERM CARE** services in the future. Please follow the instructions for each question in this section.

For questions 24 - 32, please check the appropriate box.

24. The thought that I may need help or care in the future comes up a lot for me.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

25. When I compare my health and capabilities with those of other people, I draw conclusions about my future care needs.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

26. I pay close attention to how my physical and mental capabilities are changing to assess whether I may soon need help or care.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

27. I pay attention to information in the media on the risks of needing help or care in old age.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

28. Talking to other people has made me think about whether I might need help or care in the future.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

29. I have never thought about what I might do if I needed help or care in the future.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

30. I try not to think about things like future loss of independence.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

31. I don't like to think about the risk of needing help or care in the future.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

32. I have thought extensively about how I would like to be cared for, should I ever need it.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue of me
- ☐ Somewhat true of me
- ☐ Completely true of me

33. If you should need long-term care assistance, WHO would PROVIDE it? (Check all that apply).

- ☐ Spouse/partner in own home
- ☐ Family member (other than spouse/partner) in own home
- ☐ Family member in their home
- ☐ Nursing facility/Assisted Living Facility
- ☐ Friend/Neighbor in own home
- ☐ Community-based services in community (Adult Day Care)
- ☐ Community-based services in own home (Meals on Wheels, Family Elder Care)
- ☐ Hired help in own home.
- ☐ Other (please specify)

  _____

34. If you should need long-term care assistance in the future, how would you PAY for it? (Check all that apply).

- ☐ Personal savings
- ☐ Government program (Medicare and/or Medicaid)
- ☐ Family (other than spouse/partner) financial assistance
- ☐ Community-based program
- ☐ Long-term care insurance
- ☐ Other (please specify)

35. I am worried that I won't be able to pay for long-term care services for myself or spouse/partner? I would say I . . . (Check one box).

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

36. If I wanted to I could plan ahead for potential long-term care needs. I would say I . . . (Check one box).

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

37. I believe I have control over whether or not I plan ahead for my long-term care needs. I would say I . . . (Check one box).

- ☐ Disagree completely
- ☐ Disagree somewhat
- ☐ Neither agree nor disagree
- ☐ Agree somewhat
- ☐ Agree completely

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SECTION FOUR: FUTURE PLANNING - GENERAL

In this section, you will be asked a number of questions about your **PERSONAL PLANNING**; specifically, about things that you might have already done to prepare for your possible long-term care needs.

38. In addition to retirement savings through The University of Texas' mandatory retirement savings plan (TRS/ORP), do you save using the "Voluntary Savings Program" through UT (403b and 457b)?

- ☐ No
- ☐ Yes
- ☐ Don't Know

39. Do you (and/or your spouse/partner) have any additional retirement savings through a NON-UT based pension plan, IRA, 401k, cd's, real estate/business investment, stock/bond market, and/or other savings mechanism? (Check one box).

- ☐ No
- ☐ Yes
- ☐ Don't know

40. **Have you calculated how much income you (and spouse/partner) will need in retirement? (Check one box).**
    - ☐ No
    - ☐ Yes

41. **Do you feel that you (and spouse/partner) are saving/have saved adequately for your future retirement? (Check one box).**
    - ☐ No
    - ☐ Yes
    - ☐ Don't know

42. **Do you know roughly how much you have saved through your pension or other retirement savings account(s)? (Check one box).**
    - ☐ No
    - ☐ Yes
    - ☐ Don't have one

43. **Do you know roughly how much you will receive in monthly Social Security income in retirement? (Check one box).**
    - ☐ No
    - ☐ Yes

44. **Do you (and/or spouse/partner) currently save, in any manner (pension plan, IRA, 401, cd's, real estate/business investment, stock/bond market, other savings), SPECIFICALLY with POTENTIAL LONG-TERM CARE NEEDS IN MIND? (Check one box).**
    - ☐ No
    - ☐ Yes
    - ☐ Don't know (e.g., my spouse/partner handles the finances)

45. **Are you purchasing LONG-TERM CARE insurance through The University of Texas ? (Check one box).**
    - ☐ No
    - ☐ Yes
    - ☐ Don't know (e.g., I don't remember if I enrolled)

46. **Are you purchasing Long-Term Care Insurance through a Non-UT based Long-Term Care Insurance carrier?**
    - ☐ No
    - ☐ Yes
    - ☐ Don't know (e.g., my spouse/partner handles finances/planning)

47. If yes, what is the name of your long-term care insurance?

_____

48. If you have not purchased long-term care insurance, what is the reason? (Check ALL that apply).

- ☐ The policies cost too much
- ☐ It's not something I've ever thought about
- ☐ he policies don't cover enough of the expenses
- ☐ Family will take care of my long-term care needs
- ☐ Medicare will cover my long-term care costs
- ☐ Medicaid will cover my long-term care costs
- ☐ I did not know long-term care insurance existed
- ☐ Other (please specify)

  _____
  ___

49. Do you purchase Short-Term or Long-Term DISABILITY through The University of Texas?

- ☐ No
- ☐ Yes
- ☐ Don't know (e.g., I can't remember if I enrolled)

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SECTION FIVE: FUTURE PLANNING - SPECIFIC

The following questions address SPECIFIC ACTIONS you may or may not have taken in planning for your (and spouse/partner's) possible long-term care needs. How much do you agree or disagree with the following statements.

Please check one box below for each item in this section.

GATHERING INFORMATION

50. I have compared different options for obtaining help or care in the future

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me

- ☐ Completely true of me

51. I have gathered information about options for care by talking to friends or family.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

52. I have gathered information about options for care by talking to health care professionals (doctors, nurses, home health care agencies, etc.)

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

53. Previous experiences with needing care have provided me with information about the types of care available.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

54. Observing or participating in the care of other people showed me what types of care are available.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

55. I have been following the public discussion in the media to learn more about care options.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

56. I have used converstations with others to develop a clear idea of how I want to be cared for.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

MAKING DECISIONS

57. I have compared different options for obtaining help or care in the future and have decided which would work for me and which would not.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

58. I have found from personal experience with receiving care what types of care would suit me best.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

59. I know what care options I don't want.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

60. I know my general preferences for care in the future even though I am not sure how I will get what I want.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

61. If I ever need help or care, I can choose between several options that I have considered in some depth.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

62. I will not consider certain types of care under any circumstance.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

CONCRETE PLANS

63. I have explained to someone close to me what my care preferences are.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

64. I have identified how I want to be cared for and taken concrete steps to ensure that option is available (for example, put my name on a waiting list, arranged to live with relative, moved into a one-level house to accommodate possible frailty).

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

65. I have written down my preferences for care.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

66. I have saved money to pay for care services I might need in the future.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

67. I have put important medical information and phone numbers in an easily accessible spot (like on the refrigerator for emergencies).

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

68. I have identified someone to make decisions for me, if I myself am unable to do so.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

69. I have made other plans not mentioned here to provide for my future care needs.

- ☐ Not at all true of me
- ☐ Not really true of me
- ☐ Neither true nor untrue
- ☐ Somewhat true of me
- ☐ Completely true of me

Remember,
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SECTION SIX: CURRENT ECONOMIC SITUATION

In this section, you will be asked several questions regarding effects of the recent downturn in the economy on you. Please follow the instructions for each question.

70. How has the recent downturn in the economy affected you and/or your spouse/partner? (Check all that apply)

- ☐ I lost my job
- ☐ My spouse lost job
- ☐ I lost money in the stock market (401k, or personal)
- ☐ I lost my home
- ☐ I lost my car.
- ☐ Other (please specify)

  _____
  _____

71. Have you made any changes in your life or in your behavior as a result of the recent downturn in the economy? (Check ALL that apply).

- ☐ Changed jobs
- ☐ Downsized my/our home
- ☐ Bought a more efficient car
- ☐ I/spouse was planning on retiring, but have had to keep working
- ☐ I/we am/are spending less in general
- ☐ I/spouse reduced the amount I/spouse contribute from my check to my 401k.I/spouse reduced how much I/spouse am/is contributing to other savings
- ☐ I/spouse changed my/spouse investment strategy.
- ☐ Other (please specify)

  _____

72. Have you modified your general savings behavior as a result of the recent downturn in the economy? If so, how? (Check ALL that apply).

- ☐ I /spouse have/has not changed my savings behavior
- ☐ I/spouse was not able to save before the recent economic downturn
- ☐ I/spouse am/is contributing less to savings account
- ☐ I/spouse am/is contributing less to 401k.I/spouse am/is contributing less to other investments
- ☐ I/spouse have/has stopped contributing to any savings
- ☐ Other (please specify)

73. Has your ability to save specifically for potential long-term care needs been affected by the recent downturn in the economy?

- ☐ No
- ☐ Yes
- ☐ I was not saving specifically for LTC needs before

Remember,
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SECTION SEVEN: DEMOGRAPHIC INFORMATION

In this section, you will be asked several questions regarding basic information about yourself. Please follow the instructions for each question.

74. What is your sex?

- ☐ Male
- ☐ Female

75. What is your race/ethnicity. (Check one box that best describes you).

- ☐ Black/African American
- ☐ Hispanic/Latino
- ☐ White/Non-Hispanic
- ☐ Other

_____

76. What is your marital status? (Check one box).

- ☐ Married/Cohabitating
- ☐ Married/Spouse Absent
- ☐ Widowed
- ☐ Divorced
- ☐ Separated
- ☐ Never Married

77. What was your total family income last year? (Check one box).

- ☐ Less than $29,999
- ☐ $30,000 to $44,999
- ☐ $45,000 to $59,999
- ☐ $60,000 to $74,999
- ☐ $75,000 to $99,999
- ☐ $100,000 to $199,999
- ☐ $200,000 or More

78. What is the total number of persons in your household? (Include spouse/partner, all children for whom you are financially responsible, and others for whom you are financially responsible).

_____

79. What is the total number of living children in your family (Include biological, adopted, step-children, and any other children you have raised, whether they are living in your home still or not).

_____ Children under 18 years
_____ Children 18 years and over

80. How long have you been employed full-time at The University of Texas? (Total should include time spent in ALL full-time positions).

_____ Years
_____ Months

THANK YOU SO MUCH FOR YOUR PARTICIPATION !!!

Appendix D: Preparation for Future Care Needs (PFCN) Scales (6 scales included in Survey)

Item	Measurement
Becoming Aware Scale	
The thought that I may need help or care in the future comes up a lot for me	Not at all true of me to Completely true of me
When I compare my health and capabilities with those of other people, I draw conclusions about my future care needs.	Not at all true of me to Completely true of me
I pay close attention to how my physical and mental capabilities are changing to assess whether I may soon need help or care	Not at all true of me to Completely true of me
I pay attention to information in the media on the risks of needing help or care in old age	Not at all true of me to Completely true of me
Talking to other people has made me think about whether I might need help or care in the future	Not at all true of me to Completely true of me
I have thought extensively about how I would like to be cared for, should I ever need it	Not at all true of me to Completely true of me
Planning Avoidance Scale	
I have never thought about what I might do if I needed help or care in the future	Not at all true of me to Completely true of me
I try not to think about things like future loss of independence	Not at all true of me to Completely true of me
I don't like to think about the risk of needing help or care in the future.	Not at all true of me to Completely true of me
Usefulness of Planning (Worthwhileness) Scale	
Since I can't predict whether I will need care in the future, it's not worth making plans for that occasion.	Disagree completely to Agree completely.
It is impossible to plan for future care—you must take life one day at a time.	Disagree completely to Agree completely.
I can't plan for my future care when our society is changing all the time.	Disagree completely to Agree completely.
I can't plan for my future need for help because I lack important resources (like finances, knowledge, available relatives).	Disagree completely to Agree completely.
Planning is not useful because other people can make better plans for my future care needs than I can myself.	Disagree completely to Agree completely.
I do not want to plan for future care needs because I'd rather not think about negative things.	Disagree completely to Agree completely.
If I worry about future care needs now I won't have enough energy to deal with the actual situation when it arises.	Disagree completely to Agree completely.
Gathering Information Scale	
I have *compared* different options for obtaining help or care in the future	Not at all true of me to Completely true of me
I have *gathered information* about options for care by *talking to friends or family*	Not at all true of me to Completely true of me
I have *gathered information* about options for care by talking to *health care professionals* (doctors, nurses, home health care agencies, etc.)	Not at all true of me to Completely true of me
Previous experiences with needing care have provided me with information about the types of care available	Not at all true of me to Completely true of me
Observing or participating in the care of other people showed me what types of care are available	Not at all true of me to Completely true of me
I have been *following the public discussion in the media* to learn more about care options	Not at all true of me to Completely true of me
I have used *conversations with others* to develop a	Not at all true of me to Completely

clear idea of how I want to be cared for	true of me
Making Decisions Scale	
I have compared different options for obtaining help orcare in the future and have decided which would work for me and which would not	Not at all true of me to Completely true of me
I have found from personal experience with receiving care what types of care would suit me best	Not at all true of me to Completely true of me
I know what care options I don't want	Not at all true of me to Completely true of me
I know my general preferences for care in the future even though I am not sure how I will get what I want	Not at all true of me to Completely true of me
f I ever need help or care, I can choose between several options that I have considered in some depth	Not at all true of me to Completely true of me
I will not consider certain types of care under any circumstance	Not at all true of me to Completely true of me
Concrete Plans Scale	
I have explained to someone close to me what my care preferences are	Not at all true of me to Completely true of me
I have identified how I want to be cared for and taken concrete steps to ensure that option is available (for example, put my name on a waiting list, arranged to live with relative, moved into a one-level house to accommodate possible frailty	Not at all true of me to Completely true of me
I have written down my preferences for care	Not at all true of me to Completely true of me
I have saved money to pay for care services I might need in the future	Not at all true of me to Completely true of me
I have put important medical information and phone numbers in an easily accessible spot (like on the refrigerator) for emergencies	Not at all true of me to Completely true of me
I have identified someone to make decisions for me, if I myself am unable to do so	Not at all true of me to Completely true of me
I have made other plans not mentioned here to provide formy future care needs	Not at all true of me to Completely true of me

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